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DEPARTMENT OF THE INTERIOR
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Water Resources Data Colorado Water Year 1987

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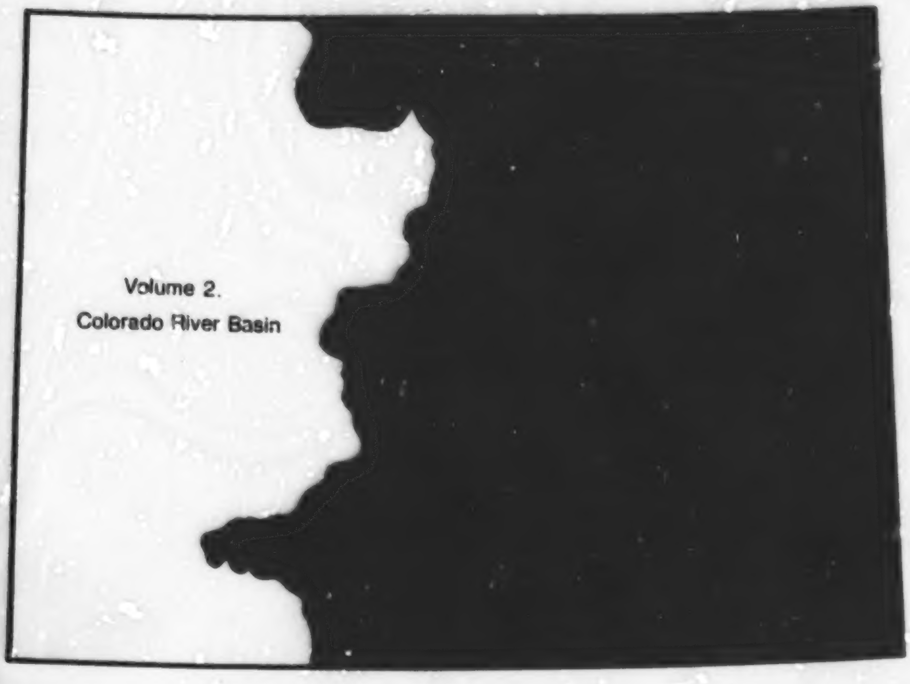
Volume 1. Missouri River Basin, Arkansas River Basin, and Rio Grande Basin



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CO-87-1
Prepared in cooperation with the State of Colorado
and with other agencies

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ORIGINAL

CALENDAR FOR WATER YEAR 1987

1986

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Water Resources Data
Colorado
Water Year 1987

Volume 1. Missouri River Basin, Arkansas River Basin, and Rio Grande Basin

by R.C. Ugland, J.L. Ebling, and R.D. Steger

Volume 2.
Colorado River Basin

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CO-87-1
Prepared in cooperation with the State of Colorado
and with other agencies

II

UNITED STATES DEPARTMENT OF THE INTERIOR
DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY
Dallas L. Peck, Director

For information on the water program in Colorado write to:

District Chief, Water Resources Division
U.S. Geological Survey
Box 25046, Mail Stop 415
Denver Federal Center
Lakewood, Co 80225

1988

PREFACE

This volume of the annual hydrologic data report of Colorado is one of a series of annual reports that document hydrologic data gathered from the U. S. Geological Survey's surface- and ground-water data-collection networks in each state, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for Colorado are contained in two volumes:

Volume 1. Missouri River, Arkansas River, and Rio Grande
basins in Colorado,
Volume 2. Colorado River basin.

This report is the culmination of a concerted effort by dedicated personnel of the U. S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

W. D. Bemis
E. J. Charbonneau
B. J. Cochran
A. C. Duncan
J. W. Gibbs
S. T. Green
M. J. Haley
E. D. Hill
D. A Johncox
L. L. Jones
B. E. Kelley
R. A. Kimbrough
M. D. Kleck.
J. M. Kuzelisk
J. D. Martinez
R. F. Middelburg
R. M. Neam
K. R. Nellson
G. B. O'Neill
R. S. Parker
W. F. Payne
H. E. Petsch Jr.
K. G. Petty
R. L. Reed
M. A. Salay
E. A. Trujillo
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Water-resources data for Colorado for the 1987 water year consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water discharge records for 319 gaging stations, stage and contents of 24 lakes and reservoirs, 5 partial-record low-flow stations, peak flow information for 34 crest-stage partial record stations, and 1 miscellaneous site; water quality for 115 gaging stations, 177 miscellaneous sites, and for 14 observation wells. Six pertinent stations in bordering States also are included in this report. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey under the direction of C.A. Pascale, District Chief. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies.

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Daily tables: (D) discharge, (C) specific conductance, (S) sediment,
(T) temperature, (e) elevation or contents, (O) dissolved oxygen, (P) pH.

Partial tables: (c) chemical, (b) biological, (m) microbiological,
(s) sediment, (t) temperature)

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VOLUME 1: MISSOURI RIVER, ARKANSAS RIVER, AND RIO GRANDE BASINS

By R. C. Ugland, R. D. Steger, and J. L. Ebling

INTRODUCTION

The Water-Resources Division of the U.S. Geological Survey, in cooperation with State agencies, obtains a large amount of data pertaining to the water resources of Colorado each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in the report series entitled "Water Resources Data - Colorado".

This report (Volume 1 of two volumes) includes records on both surface and ground water in the State, east of the continental divide. Specifically, it contains: (1) discharge records for 124 streamflow-gaging stations, and peak discharges for 34 partial-record streamflow stations; (2) stage and contents for 14 lakes and reservoirs; (3) water-quality data for 57 streamflow-gaging stations, for 1 reservoir, for 57 ungaged streamsites, for 51 gaged sites, and for 14 wells. The data in this report represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Colorado.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for Colorado were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-water Supply of the United States," Parts 6B, 7, and 8." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States." Data on ground-water levels for the 1935 through 1955 water years were published annually under the title "Water Levels and Artesian Pressures in Observation Wells in the United States." For the 1956 through 1974 water years the data were published in four 5-year reports under the title "Ground-Water Levels in the United States." Water-supply papers may be purchased from the, U.S. Geological Survey, Books and Open-File Reports, Federal Center, Building 41, Box 25425, Denver, CO 80225.

For water years 1961 through 1970, streamflow data were released by the Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1970 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1971 water year, water data on streamflow, water quality, and ground-water are published in official survey reports on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report CO-87-1." These water-data reports are for sale, in paper copy or in micro-fiche, by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

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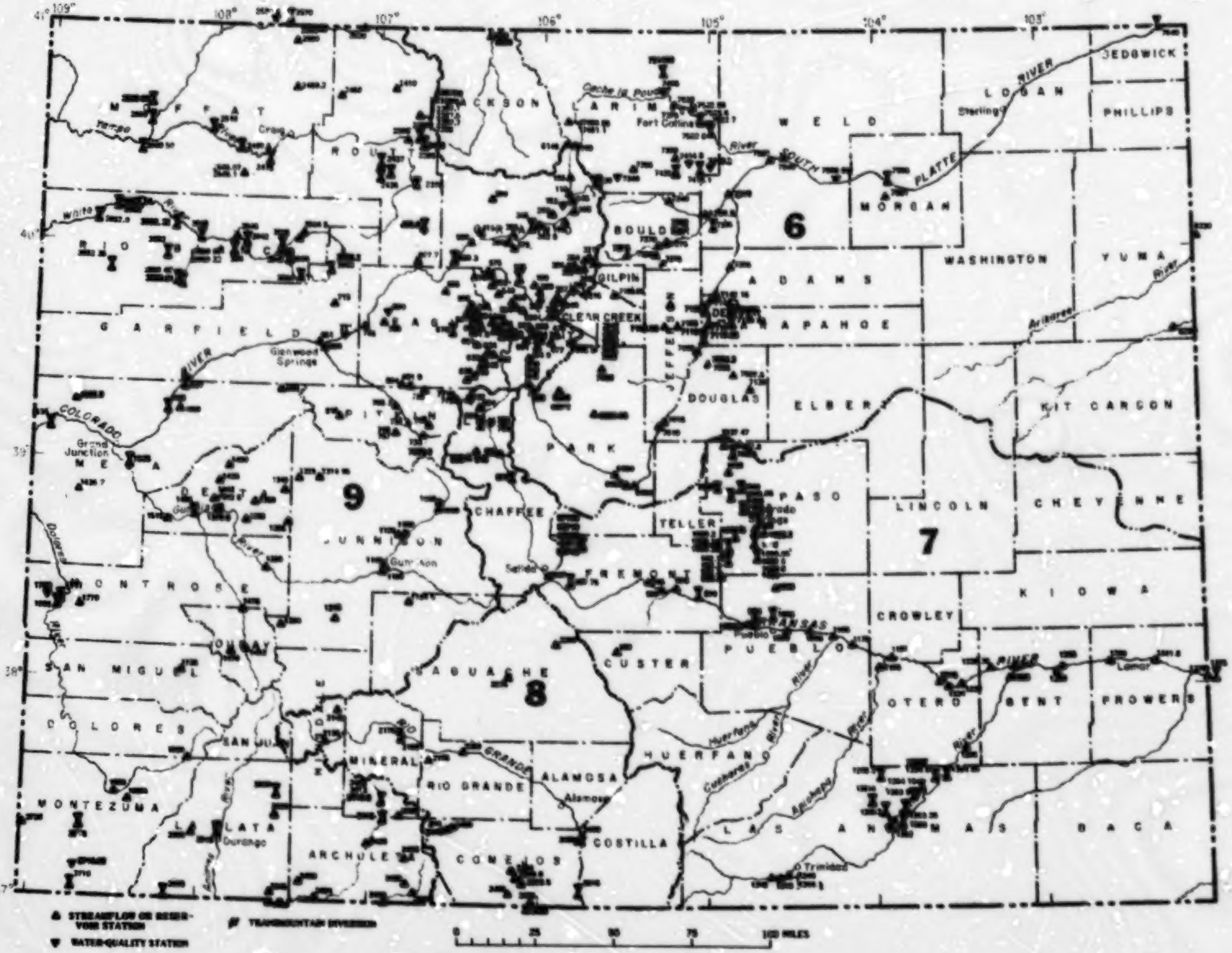
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Salida
Pueblo
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Alamosa
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Apishapa River
Trinidad
STREAMFLOW OR RESERVOIR STATION
TRANSMOUNTAIN DIVERSION
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Figure 1.—Map showing locations of lakes and stream-gaging stations and water-quality stations in Colorado.

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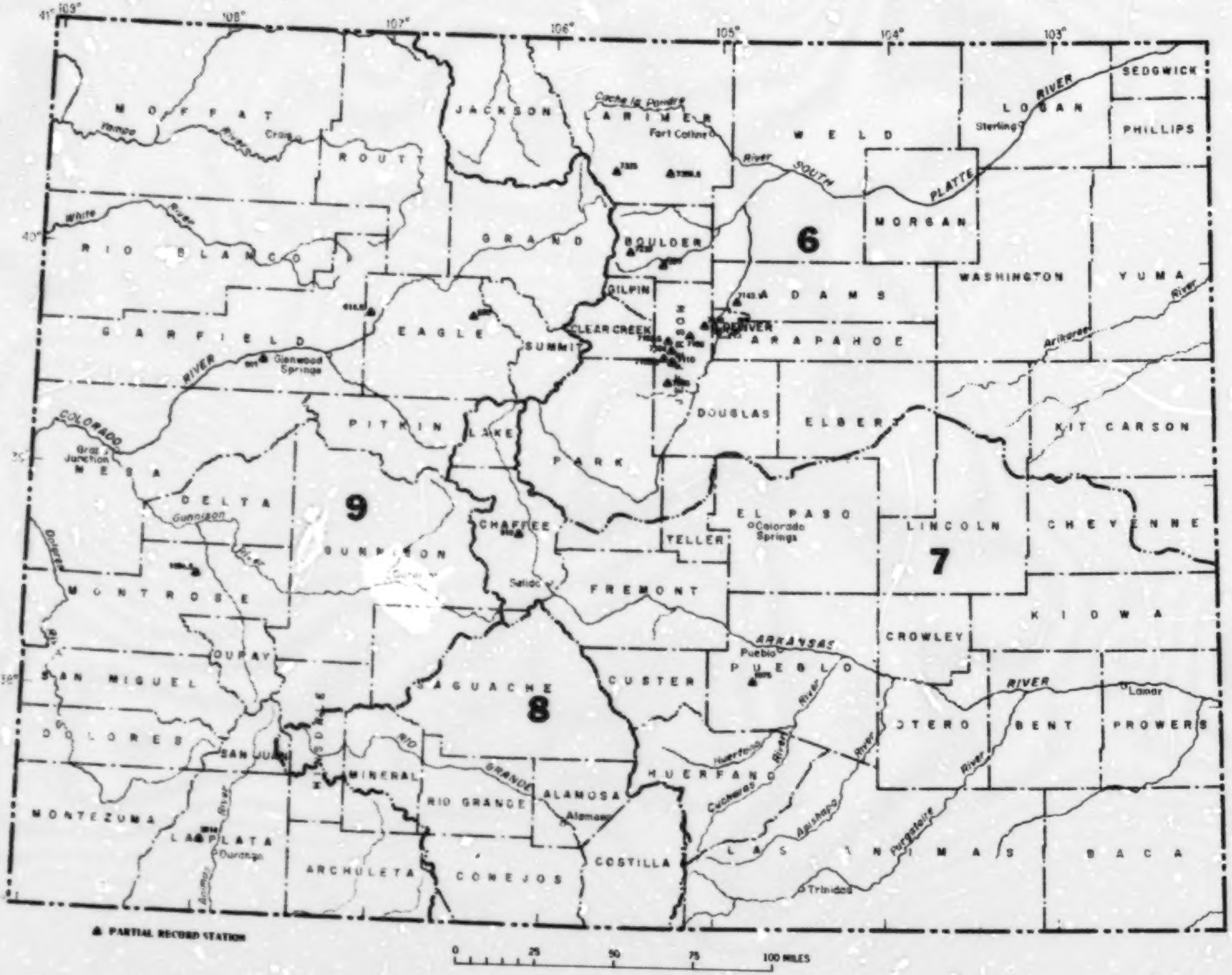
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Durango
Animas
River
Trinidad
▲ PARTIAL RECORD STATION
0
25
50
75
100 MILES

Figure 2.—Map showing locations of crest-stage partial-record stations in Colorado.

COOPERATION

The U.S. Geological Survey and organizations of the State of Colorado have had cooperative agreements for the systematic collection of surface-water records since 1895 and for water-quality records since 1941. Organizations that assisted in collecting data for this report through cooperative agreement with the Survey are:

Arkansas River Compact Administration, Jim Rogers, Treasurer.
Boulder County Public Works Department, C. Light, Systems Analyst.
Cherokee Water and Sanitation District, F. S. Loosley, Manager.
Cherry Creek Basin Authority, Rhonda Sandquist.
City and County of Denver, Board of Water Commissioners, J. A. Yelenick, President.
City of Aspen, Robert Anderson, City Manager.
City of Arvada, Jim Sullivan, City Engineer.
City of Aurora, Thomas Griswold, acting Director of Utilities.
City of Boulder, James Piper, City Manager.
City of Colorado Springs, Larry N. Blick, City Manager.
City of Englewood, Stewart Fonda, Director, Wastewater Treatment Plant.
City of Fort Collins, Bobbi Dunham, Civil Engineer II.
City of Fruita, Peter Haller, Mayor.
City of Glendale, Robert Taylor.
City of Glenwood Springs, M. Flinn, Manager.
City of Longmont, Linn Folsom.
City of Thornton, Joseph E. Vigil, Chairman, Utilities Board.
City of Steamboat Springs, J. Zimmerman.
Colorado Department of Health, Thomas M. Vernon, Executive Director.
Colorado Department of Natural Resources, David H. Getches, Executive Director.
Colorado Division of Water Resources, J. A. Danielson, State Engineer.
Colorado Division of Mined Land Reclamation, David Shelton, Director.
Colorado Geological Survey, John Rold, State Geologist.
Colorado River Water Conservation District, Roland C. Fischer, Secretary-Engineer.
Colorado Springs Department of Public Utilities, J. D. Phillips, Director.
Delta County Board of County Commisioners, Roger Blouch, Chairman.
Denver Regional Council of Governments, Robert D. Farley, Executive Director.
Eagle County Board of Commissioners, D. E. Mott, Commissioner.
Evergreen Metropolitan District, G. C. Schulte, General Manager.
Fountain Valley Authority, Ed Bailey, Secretary.
Garfield County, Rodger Ludwig, Director of Administrative Services.
Grand County, R. Howard Moody, County Manager.
Larimer-Weld Regional Council of Governments, L. L. Pearson, Executive Director.
Lost Creek Groundwater Management District, G. H. Bush, Manager.
Lower Fountain Water-Quality Management Association, Stuart Loosely, President.
Metropolitan Denver Sewage Disposal District No. 1, Jack B. Enger, Manager.
Mineral County, Charles Steele, Planning Officer.
Moffat County, Richard Gibbons, Director.
North Kiowa-Bijou Ground Water Management District, Donald F. McClary, Attorney.
North LaJunta Water Conservation District, Mark Korbitz.
Northern Colorado Water Conservancy District, L. Simpson, Secretary.
Pikes Peak Area Council of Governments, Maurice Rahimi.
Pikes Peak Regional Building Department, Dan Bunting.
Pitkin County Board of County Commissioners, C. Stewart, County Manager.
Pueblo Board of Water Works, Alan Hamel, Executive Director.
Pueblo Civil Defense, Betty Jo Hopper, Director.
Pueblo West Metro Water District, E. M. Zamecki, Manager.
Purgatoire River Water Conservancy District, C. Latuda, President.
Rio Blanco County Board of County Commissioners, A. J. Jones.
Rio Grande Water Conservation District, Ralph Curtis, Manager.
Southeastern Colorado Water Conservancy District, C. L. Thomson, General Manager.
Southwestern Water Conservation District, Edward Searle, Manager.
St. Charles Mesa Water Association, Lee Simpson, Manager.
Town of Breckenridge, Gary Roberts, Town Manager.
Town of Castle Rock, Tom Gallier, Director of Utilities.
Trinchera Water Conservancy District, L. Smith, President.
Uncompahgre Valley Water Users Association, J. Hokit, Manager.
Upper Yampa Water Conservancy District, J. Fetcher.
Upper Arkansas River Water Conservancy District, K. Baker, General Manager.
Upper Black Squirrel Grounwater Management District, Elvin Henderson, Chairman.
Urban Drainage and Flood Control District, L. Scott Tucker, Executive Director.
Water Users No. 1, Jim Gayler, Associate Manager.
Yellow Jacket Water Conservancy District, F. G. Cooley, Secretary-Council.

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OVERVIEW OF WATER YEAR 1987
[East of the Continental Divide]

Prepared by Harold E. Petsch, Jr.

Precipitation

Precipitation data for water year 1987 were obtained from published reports of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service, for the four National Weather Service Divisions in Colorado that are east of the Continental Divide. These data are listed in table 1. Precipitation and departures from normal precipitation are listed for the first 6 months of the water year when precipitation is predominately snow, and then for the remaining 6 months when precipitation is predominately rain. Also listed are the precipitation and departures from normal precipitation for the entire water year.

The Arkansas Drainage Basin Division had 66 percent greater than normal precipitation during the first 6 months of the water year and 1 percent greater than normal precipitation during the last 6 months. The Kansas Drainage Basin Division had 59 percent greater than normal precipitation during the first 6 months of the water year and 15 percent greater than normal precipitation during the last 6 months. The Platte Drainage Basin Division had 65 percent greater than normal precipitation during the first 6 months of the water year and 9 percent greater than normal precipitation during the last 6 months. The Rio Grande Drainage Basin Division had 67 percent greater than normal precipitation during the first 6 months of the water year and 9 percent less than normal precipitation during the last 6 months.

Precipitation for the water year was 20 percent greater than normal in the Arkansas Drainage Basin Division, 24 percent greater than normal in the Kansas and Platte Drainage Basin Divisions, and 22 percent greater than normal in the Rio Grande Drainage Basin Division. Graphs of monthly precipitation for the water year and normal monthly precipitation, at selected weather stations, are shown in figure 3.

Table 1.--Precipitation during water year 1987 and departures from normal precipitation (1951-80), in inches

National Weather Service division	October-March		April-September		Water year 1987	
	Precipitation	Departure from normal	Precipitation	Departure from normal	Precipitation	Departure from normal
Arkansas Drainage Basin	6.64	2.65	10.46	0.19	17.10	2.84
Kansas Drainage Basin	5.25	1.94	14.77	1.98	20.02	3.92
Platte Drainage Basin	6.89	2.71	11.79	.96	18.68	3.67
Rio Grande Drainage Basin	7.87	3.17	6.37	-.63	14.24	2.54

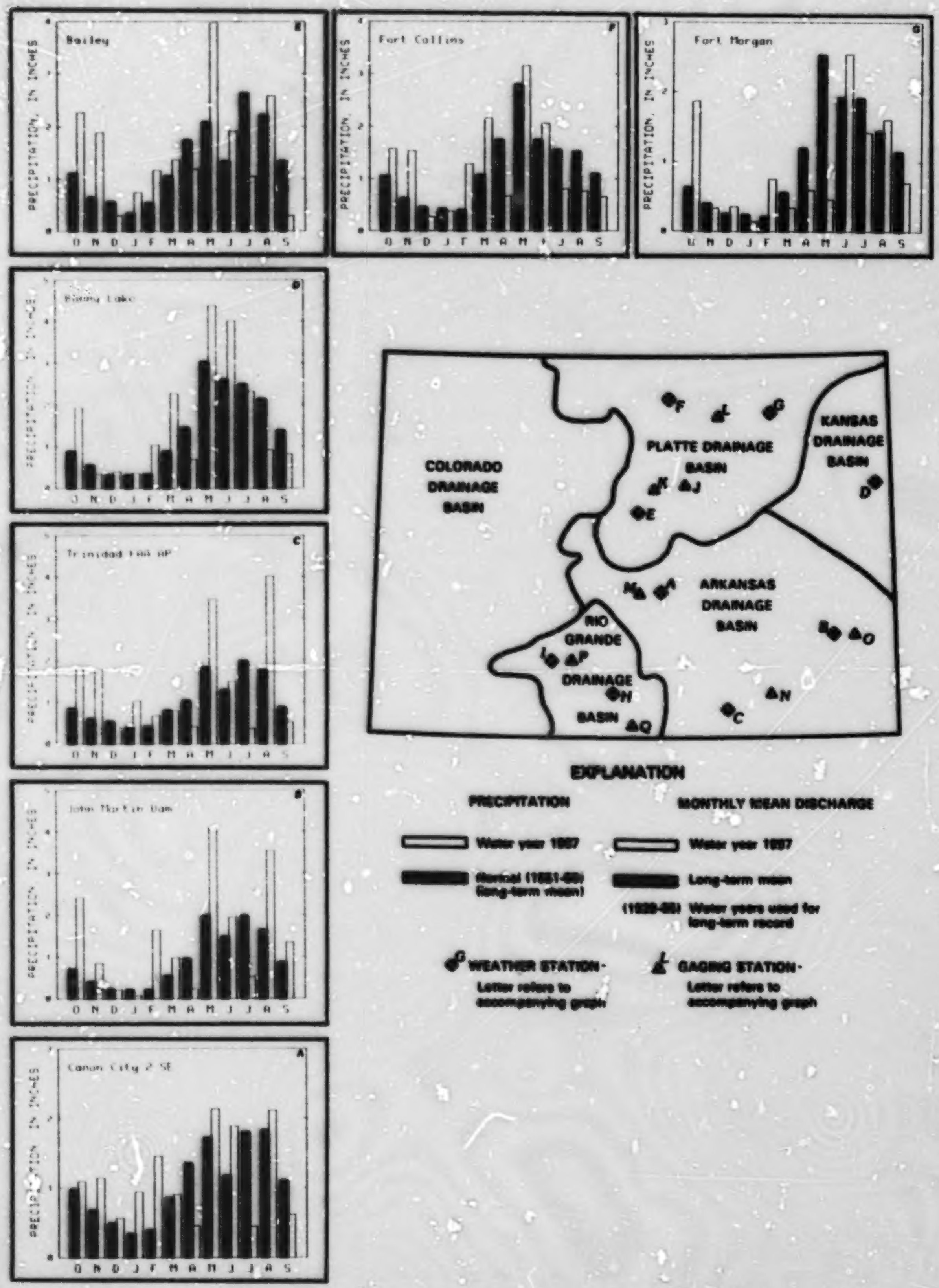

Figure 3.—Comparison of precipitation and discharge during water year 1987 to long-term means for precipitation and discharge.

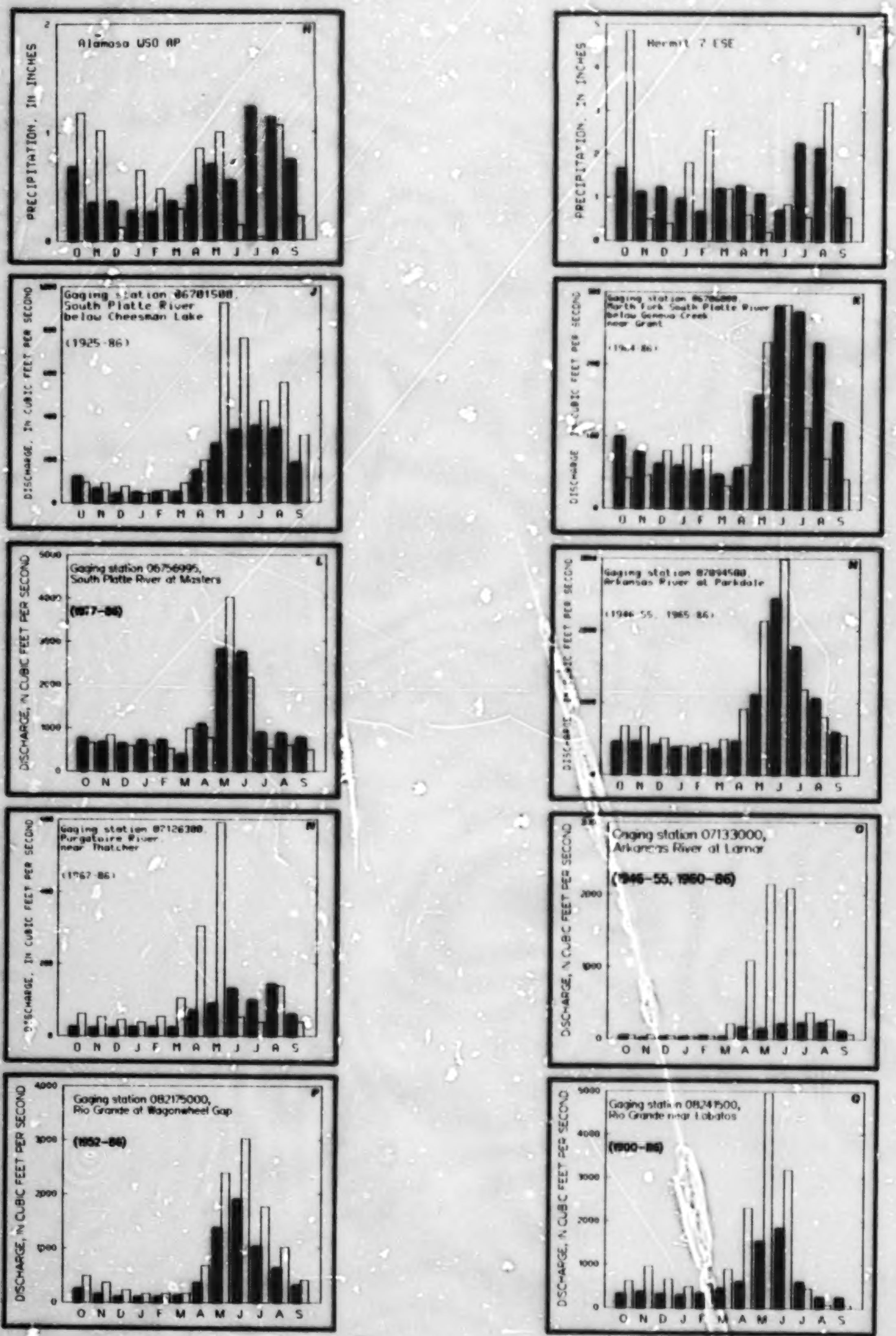

Figure 3.—(continued)

Streamflow

Monthly mean discharge during water year 1987 at selected stream-gaging stations is compared with long-term mean monthly discharge in figure 3. Individual graphs show the varied streamflow conditions east of the Continental Divide during the water year. The long-term mean monthly discharge used for gaging station 06706000, North Fork South Platte River below Geneva Creek, at Grant (fig. 3*K*), does not include records prior to water year 1964 (the year that imported water from the Colorado River basin began flowing past the station).

The graphs for gaging stations 06701500, South Platte River below Cheesman Lake (fig. 3*J*), and 06706000, North Fork South Platte River below Geneva Creek, at Grant (fig. 3*K*), indicate that monthly discharges for water year 1987 were not consistent with the general trend of their long-term mean monthly discharges, but were affected by precipitation patterns in the Platte Drainage Basin Division (figs. 3*E*-3*G*). The graph for gaging station 06756995, South Platte River at Masters (fig. 3*L*), indicates that monthly discharges for water year 1987 were consistent with the general trend of its long-term mean monthly discharges and with precipitation patterns in the Platte Drainage Basin Division. The trends in the three discharge graphs also were affected by local water-management practices. The annual mean discharge at gaging station 06701500, South Platte River below Cheesman Lake, has been greater than average for 5 consecutive years.

The graph for gaging station 07094500, Arkansas River at Parkdale (fig. 3*M*), indicates that monthly discharges during water year 1987 followed the general trend of long-term monthly discharges. The graphs for gaging stations 07126300, Purgatoire River near Thatcher (fig. 3*N*), and 07133000, Arkansas River at Lamar (fig. 3*O*), indicate that discharges for water year 1987 were not consistent with either the general trend of their long-term mean discharges or the precipitation patterns in the Arkansas Drainage Basin Division (figs. 3*A*-3*C*). The trends in the latter discharge graphs are affected by local water-management practices, which consist mostly of storage and release of water as dictated by daily and seasonal irrigation and municipal needs. The annual mean discharge at gaging station 07094500, Arkansas River at Parkdale, has been greater than average for 5 consecutive years.

The graphs for gaging stations 08217500, Rio Grande at Wagonwheel Gap (fig. 3*P*), and 08251500, Rio Grande near Lobatos (fig. 3*Q*), indicate that monthly discharges for water year 1987 were consistent with the general trends for long-term mean monthly discharges and were greater than the long-term means throughout most of the water year. The annual mean discharge at gaging station 08217500, Rio Grande at Wagonwheel Gap has been greater than average for 6 consecutive years.

Peak discharges during water year 1987 and for the period of record for selected gaging stations are shown in table 2. The peak discharges at gaging stations 06701500, South Platte River below Cheesman Lake; 07094500, Arkansas River at Parkdale; 08220000, Rio Grande near Del Norte; 08240000, Rio Grande above mouth of Trinchera Creek, near Lasauses; and 08251500, Rio Grande near Lobatos, were greater than their 75th-percentile values, but were substantially less than their record maximums. Peak discharges at gaging stations 06620000, North Platte River near Northgate, and 07128500, Purgatoire River near Las Animas, were less than their 25th-percentile values, but were substantially greater than their record minimums.

Table 2.--Peak discharges for water year 1987 and for the period of record at selected gaging stations

[mi^2, square miles; ft^3/s, cubic feet per second]

Gaging station identification		Drainage area (mi^2)	Period of record (water years)	Water year 1987		Period of record		Remarks on 1987 peak discharge
				Date	Peak discharge (ft^3/s)	Date	Peak discharge (ft^3/s)	
06620000	North Platte River near Northgate	1,431	1904, 1915-86	6/10	1,120	6/11/23	6,720	Less than 25th percentile
06696000	South Platte River near Lake George	963	1930-86	6/12	546	4/28/70	3,000	Greater than median
06701500	South Platte River below Cheesman Lake	1,752	1927-86	5/25	1,460	4/28/70	4,640	Greater than 75th percentile
06706000	North Fork South Platte River below Geneva Creek, at Grant	127	1/1964-86	6/9	515	6/29/78	825	Less than median
06752500	Cache la Poudre River near Greeley	1,877	1903, 1916-17, 1919, 1924-86	5/23	1,300	6/14/83	6,360	Less than median
06756995	South Platte River at Masters	12,165	1977-80, 1982-86	5/25	8,720	5/2/80	15,100	Greater than median
07094500	Arkansas River at Parkdale	2,548	1946-55, 1965-86	6/10	5,950	6/26/83	6,310	Greater than 75th percentile (3rd highest)
07106500	Fountain Creek at Pueblo	926	1921-22, 1924-25, 1936, 1941-65, 1971-86	6/9	2,600	6/17/65	47,000	Less than median
07109500	Arkansas River near Avondale	6,327	1939-51, 1965-86	6/10	6,420	6/18/65	50,000	Less than median
07124000	Arkansas River at Las Animas	14,417	1939-86	5/21	6,240	5/20/55	44,000	Greater than median
07126300	Purgatoire River near Thatcher	1,791	1965-86	5/6	4,600	6/18/65	47,700	Less than median
07128500	Purgatoire River near Las Animas	3,318	1922-31, 1949-86	5/8	2,900	5/20/55	70,000	Less than 25th percentile
07133000	Arkansas River at Lamar	19,780	1913, 1915, 1919-55, 1960-86	5/25	3,200	6/5/21	130,000	Less than median
08220000	Rio Grande near Del Norte	1,320	1890-1986	6/16	7,490	10/5/11	18,000	Greater than 75th percentile
08240000	Rio Grande above mouth of Trinchera Creek, near Lasauses	5,740	1936-62, 1964-80, 1982-86	5/19	4,490	6/21/49	5,470	Greater than 75th percentile (4th highest)
08246500	Conejos River near Mogote	282	1903-5, 1912-86	6/10	2,010	10/5/11	9,000	Greater than median
08251500	Rio Grande near Lobatos	7,700	1900-86	5/19	6,760	6/8/05	13,200	Greater than 75th percentile

1/Period since imported water began flowing past this gaging station.

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Chemical Quality of Streamflow

To determine whether significant changes are occurring in the chemical quality of streamflow in Colorado, an analysis was made of specific conductance measured approximately monthly at gaging stations on six representative streams. Each gaging station either is the most downstream gaging station on that stream, is representative of a major part of the drainage area of that stream, or is the only gaging station in that drainage that fulfills the monthly measurement criterion. A comparison of the range and distribution of the specific conductance for water year 1987 to long-term values for each selected gaging station is shown in figure 4.

Specific conductance can be used to estimate the dissolved-solids concentration in water because specific conductance is directly proportional to the concentrations and types of ions in water. To determine whether there are significant differences in values of specific conductance for water year 1987 and values for the period of record used for comparison, a statistical technique called the t-test was used.

The t-test technique requires proving or disproving a hypothesis that the mean specific conductance for water year 1987 was equal to the mean for the period of record. The procedure for testing the hypothesis requires computing a t statistic and comparing it to a value obtained from a table of "Student's" t values (Box, 1978). If the absolute value of the computed t value (t_c) is less than the tabular t value (t_{tab}), the hypothesis that the means are equal is proven. If the absolute value of t_c is greater than t_{tab}, the hypothesis is disproven, and the means are not equal. For specific conductance, a rejection of the hypothesis indicates a difference in water quality at a particular gaging station for water year 1987 compared to the period of record. A 95-percent level of significance ($\alpha = 0.05$) was used for each t-test, and the data were assumed to be distributed normally.

Results of the the t-tests for the six gaging stations are listed in table 3. For five of the stations, 06756995, South Platte River at Masters; 06759100, Bijou Creek near Fort Morgan; 07094500, Arkansas River at Parkdale; 07133000, Arkansas River at Lamar; and 08217500, Rio Grande at Wagonwheel Gap, comparisons of mean specific conductance for water year 1987 to that for the period of record indicate that the means of mean specific conductance are not different statistically.

The mean specific conductance for water year 1987 for gaging station 07128500, Purgatoire River near Las Animas, was substantially less than the mean specific conductance for the 10-year period of record 1977-86 (table 3). Published records of specific conductance and coincident water discharge for the gaging station indicate an inverse relation for the two parameters. For water year 1987, mean discharge at the gaging station exceeded the 10-year mean discharge by 74 percent; therefore, the mean specific conductance for water year 1987 should be substantially less than the mean specific conductance for the period of record.

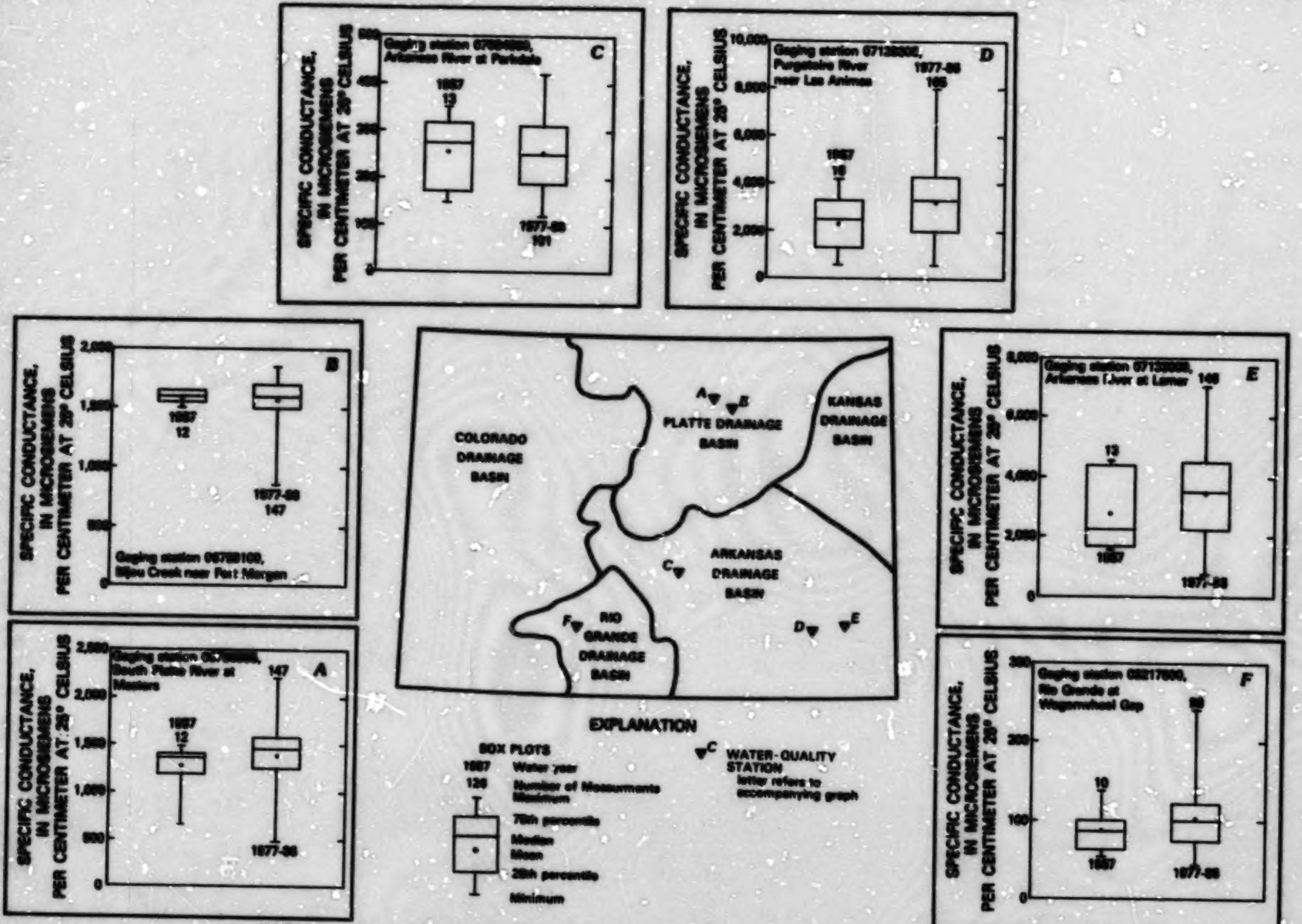

Figure 4.—Comparison of range and distribution of specific conductance measured during water year 1987 to long-term values.

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Table 3.--Results of t-tests comparing mean specific conductance of discharge for water year 1987 with mean for the period of record at selected gaging stations

[Specific conductance, in microsiemens per centimeter at 25 degrees Celsius; A, accepted; R, rejected]

Gaging station identification	Specific conductance						t-test			
	Water year 1987			Period of record						
	Number of values	Mean	Standard deviation	Number of values	Mean	Standard deviation	Period used (water years)	t_{tab}	t_c	Hypothesis
06756995 South Platte River at Masters-------------------	12	1,275	238	147	1,380	286	1977-86	± 2.15	-1.44	A
06759100 Bijou Creek near Fort Morgan-----------------	12	1,592	51.5	147	1,580	160	1977-86	± 2.03	0.61	A
07094500 Arkansas River at Parkdale-------------------	13	257	70.8	101	252	72.0	1977-86	± 2.13	0.23	A
07128500 Purgatoire River near Las Animas--------------	16	2,393	1,086	165	3,272	1,514	1977-86	± 2.08	-3.31	R
07133000 Arkansas River at Lamar----------------------	13	2,942	1,320	146	3,452	1,410	1977-86	± 2.14	-1.33	A
08217500 Rio Grande at Wagonwheel Gap---------------	10	86.2	25.2	99	102	37.1	1977-86	± 2.15	-1.82	A

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of 57 small sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1987 water year that began on October 1, 1986, and ended September 30, 1987. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, and water-quality data for surface and ground water. The locations of the stations where the data were collected are shown in figures 1, and 2. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether streamsite or well, in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and, in Colorado, for surface-water stations where only infrequent measurements are made.

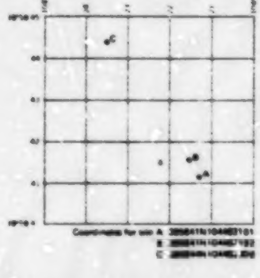
Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downtream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station, such as 06614800, which appears just to the left of the station name, includes the two-digit Part number "06" plus the six-digit downstream-order number "614800." The Part number designates the major river basin; for example, Part "06" is the Missouri River basin.

Latitude-Longitude System

The identification numbers for wells, springs, and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote the degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number, and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure below.)



System for numbering wells, springs, and miscellaneous sites (township and range).

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles. Records of miscellaneous discharge measurements or of measurements from special studies may be considered as partial records, but they are presented separately in this report. Location of all complete-record stations for which data are given in this report are shown in figure 1.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a contiuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relationship between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog records that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adapted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

In computing records of lake or reservoir contents, it is necessary to have available from surveys, curves, or tables defining the relationship of stage and content. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. Even when this is done, the contents computed may become increasingly in error as time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

For some gaging stations there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outlfow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections. "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

The records published for each gaging station consist of two parts, the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location; period of record; average discharge; historical extremes; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see glossary), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a remarks statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

AVERAGE DISCHARGE.--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development.

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum stages and maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record, except the peak discharge listed may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District office to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

The daily table for stream-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are ommitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown are the appropriate discharges for the calendar and water years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

If applicable, data collected at partial-record stations follow the information for continuous-record sites. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated," or by listing the dates of estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records depends primarily on: (1) The stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of their true value; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned, are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for daily values less than 1 ft^3/s; to the nearest tenth between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures for more than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Records Available

The National Water Data Exchange (NAWDEX), U.S. Geological Survey, Reston, VA 22092, maintains an index of records of discharge collected by other agencies but not published by the Geological Survey. Information on records at specific sites can be obtained from that office upon request.

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables are on file in the Colorado District office. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the District office.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A *continuing-record station* is a site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly. A *partial-record station* is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A *miscellaneous* sampling site is a location other than a continuing or partial-record station, where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figure 1.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed on pages 30 and 31 of this report. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey District office.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals, depends on flow conditions and other factors which must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the U.S.G.S. District Office whose address is given on the back of the title page of this report.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the District office.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment discharge characteristics of the stream.

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally, all other samples are analyzed in the Geological Survey laboratories in Arvada, Colo., or Doraville, Ga. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratories are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device is in operaiton at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to insure the most recent updates.

The surface-water-quality records for partial-record statiopns and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remark Codes

The following remarks codes may appear with the water-quality data in this report:

PRINTED OUTPUT	REMARK
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Based on non-ideal colony count
M	Presence of material verified but not quantified

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that for most sampling sites they consist of only one set of measurements for the water year. The quality of ground water ordinarily changes only slowly; therefore, for most general purposes one annual sampling, or only a few samples taken at infrequent intervals during the year, is sufficient. Frequent measurement of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate concentration. In the special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes.

Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the "U.S. Geological Survey Techniques of Water-Resources Investigations" manuals listed at the end of the introductory text. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Data Presentation

The records of ground-water quality are published in a section titled QUALITY OF GROUND WATER immediately following the ground-water-level records. Data for quality of ground water are listed alphabetically by County, and are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longtidue locations. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water. The REMARK codes listed for surface-water-quality records are also applicable to ground-water-quality records.

ACCESS TO WATSTORE DATA

The National WATer Data STOrage and REtrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's District offices (see address given on the back of the title page).

General inquires about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, Virginia 22092

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as Gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organism which produce red or pink colonies with 48 hours at 35°C ± 1.0°C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by micro-organisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll *a* and *b* are the two most common green pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at a gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic foot per second (ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Cubic feet per second per square mile ($(ft^3/s)/mi^2$) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific time.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45 um membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage" although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate ($CaCO_3$).

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each groundwater observation well.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substances (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (ug/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per liter (UG/L, ug/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which incudes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area habitat, usually square meter (m^2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter Code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter or particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with the recommendation made by the American Geophysical Unit Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay..........	0.00024 - 0.004	Sedimentation
Silt..........	.004 - .062	Sedimentation
Sand..........	.062 - 2.0	Sedimentation or sieve
Gravel........	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population in terms of types, numbers, mass, or volume.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is a community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton is dominated by small crustaceans and rotifers.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time mg C/(m^2.time) for periphyton and macrophytes and mg C/(m^3.time) for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time mgO/(m^2.time) for periphyton and macrophytes and mgO/(m^3.time) for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027.

Suspended-sediment load is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry mass or volume, that passes a section during a given time.

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

7-day 10-year low flow (7 Q_{10}) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and the volume of water, per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is they physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is the part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituents.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchial scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

Kingdom......................	Animal
Phylum.......................	Arthropoda
Class........................	Insecta
Order........................	Ephemeroptera
Family.......................	Ephemeridae
Genus........................	Hexagenia
Species......................	Hexagenia limbata

Thermograph is an instrument that continuously records variation of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined all of the constituent in the sample.)

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross-section per unit of time. This term needs to be qualifed, such as "total sediment discharge," "total chloride discharge," and so on.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses, because different digestion procedures are likely to produce different analytical results.

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1980, is called the "1980 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

EXPLANATION OF OMITTED DATA

Omitted data, water year 1987

Data for some stations operated during water year 1987, which have previously published data, are not included in this report. The data for these stations, listed in table 4, was omitted for various technical reasons. These data will be published in a subsequent report.

Omitted data, previous water years

Data for some stations omitted from previous water year publications are included in this report. These stations are listed in table 5.

Table 4.--Stations with data omitted from this report

PLATTE RIVER BASIN

06695000	South Platte River above Elevenmile Canyon Reservoir near Hartsel
06720500	South Platte River at Henderson
06724000	St Vrain Creek at Lyons
06727000	Boulder Creek near Orodell
06727000	South Boulder Creek near Eldorado Springs
06733000	Big Thompson River at Estes Park
06738000	Big Thompson River at mouth of canyon, near Drake
06752000	Cache la Poudre River at mouth of Canyon near Fort Collins
06754000	South Platte River near Kersey (1986-87 streamflow)
06758500	South Platte River near Weldona (1986-87 streamflow only)
06764000	South Platte River at Julesburg (streamflow only)

ARKANSAS RIVER BASIN

07084500	Lake Creek above Twin Lakes Reservoir (1986-87 streamflow)
07086000	Arkansas River at Granite (1986-87 streamflow)
07086500	Clear Creek above Clear Creek Reservoir
07093700	Arkansas River near Wellsville (1986-87 streamflow)
07093705	Badger Creek above Cals Fork Gulch (1986-87 streamflow, and water-quality)
07093710	Wagon Tongue Creek near Howard (1986-87 streamflow, and water-quality)
07093720	Long Gulch near Howard (1986-87 streamflow, and water-quality)
07093745	Gribbles Creek near Howard (1986-87 streamflow, and water-quality)
07095000	Grape Creek near Westcliffe
07117000	Arkansas River near Nepesta
07119700	Arkansas River at Catlin Dam near Fowler
07123000	Arkansas River at La Junta
07126500	Purgatoire River at Ninemile Dam near Higbee (1986-87 streamflow)

Table 5.--Stations with previous water year data included in this report

PLATTE RIVER BASIN

06699005	Tarryall Creek below Rock Creek, near Jefferson--1983-86, peak discharge
06710605	Bear Creek above Bear Creek Lake near Morrison--1986, streamflow
06711500	Bear Creek at mouth at Sheridan--1986, streamflow
06720500	South Platte River at Henderson--1986, streamflow
06727000	Boulder Creek near Orodell--1986, streamblow
06731000	St Vrain Creek at mouth, near Platteville--1986, streamflow
06738000	Big thompson River at mouth of Canyon, near Drake--1986, streamflow
06742500	Carter Lake near Berthoud--1986, monthend elevation and contents
402053105125800	Carter Lake near Berthoud--1986, water-quality data
402009105130700	Carter Lake near Berthoud--1986, water-quality data

ARKANSAS RIVER BASIN

07097000	Arkansas River at Portland--1986, streamflow
07103700	Fountain Creek near Colorado, Springs--1986, sediment
07103747	Monument Creek at Palmer Lake--1986, sediment
07103780	Monument Creek above North Gate Boulevard at U.S. Air Force Academy--1986, sediment
07104000	Monument Creek at Pikeview--1986, sediment
07104905	Monument Creek at Bijou Street at Colorado Springs--1986, sediment
07105500	Fountain Creek at Colorado Springs--1986, sediment
07105800	Fountain Creek at Security--1986, water-quality data
07123000	Arkansas River at LaJunta--1986 streamflow
07126140	Van Bremer Arroyo near Tyrone--1985-86, water-quality
07126200	Van Bremer Arroyo near Model--1983-86, water-quality data
07126300	Purgatoire River near Thatcher--1986 sediment, water-quality data, and daily sediment
07126390	Lockwood Canyon Creek near Thatcher--1983-86 water-quality data
07126415	Red Rock Canyon Creek at Mouth near Thatcher--1983-86, water-quality data

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The reports listed below are for sale by the U.S. Geological Survey, Books and Open- File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

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PLATTE RIVER BASIN

06614800 MICHIGAN RIVER NEAR CAMERON PASS, CO

LOCATION.--Lat 40°29'46", long 105°51'52", in S½ sec.12, T.6 N., R.76 W. (unsurveyed), Jackson County, Hydrologic Unit 10180001, on right bank 500 ft upstream from Michigan ditch, 2.2 mi southeast of Cameron Pass, 8 mi east of Gould, and 27 mi southeast of Walden.

DRAINAGE AREA.--1.53 mi^2.

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 10,390 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 21-23, Nov. 19, 20 and Dec. 4 to Feb. 19. Records good except for estimated daily discharges, and winter period, which are poor. No diversion upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--14 years, 3.10 ft^3/s; 2,250 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64 ft^3/s, June 30, 1984, gage height, 3.28 ft; maximum gage height, 3.53 ft, June 18, 1974; minimum daily discharge, 0.12 ft^3/s, Jan. 12, 13, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 29 ft^3/s at 0100 May 17, gage height, 3.02 ft; minimum daily, 0.23 ft^3/s, Apr. 1-3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.76	.59	.31	.29	.25	.23	2.1	10	6.0	4.5	1.4
2	1.2	.81	.58	.31	.29	.27	.23	1.9	11	5.3	3.4	1.3
3	1.3	.77	.56	.31	.29	.27	.23	1.6	12	4.8	2.7	1.2
4	1.2	.72	.54	.31	.29	.27	.25	1.5	15	4.4	2.4	1.2
5	1.2	.72	.53	.31	.29	.27	.25	1.4	18	4.1	2.1	1.2
6	1.2	.72	.51	.31	.29	.27	.25	1.6	19	3.8	2.1	1.2
7	1.3	.72	.50	.31	.29	.27	.25	2.1	19	3.7	2.7	1.1
8	1.3	.72	.48	.31	.29	.27	.25	2.8	20	3.5	2.4	1.1
9	1.3	.59	.47	.31	.29	.27	.25	3.3	21	3.3	2.2	1.1
10	1.3	.52	.45	.31	.29	.27	.25	3.8	21	3.1	2.0	1.0
11	1.4	.56	.44	.31	.29	.27	.25	4.2	20	3.2	1.9	.98
12	1.4	.59	.43	.30	.29	.27	.25	4.9	20	3.9	1.9	.91
13	1.3	.68	.42	.30	.29	.27	.25	7.1	20	3.4	1.8	.88
14	1.2	.72	.40	.30	.29	.27	.26	9.1	20	3.0	1.9	.88
15	1.1	.72	.39	.30	.29	.27	.28	14	18	2.9	1.7	1.1
16	1.1	.72	.38	.30	.28	.27	.29	18	17	2.7	1.6	1.1
17	1.0	.72	.37	.30	.28	.25	.31	24	14	3.0	1.5	1.1
18	.92	.72	.36	.30	.28	.25	.38	18	13	3.0	1.4	.99
19	.91	.72	.35	.30	.28	.25	.46	14	12	2.7	1.4	.91
20	.92	.72	.34	.30	.28	.25	.44	12	9.9	2.5	1.3	.86
21	1.1	.72	.33	.30	.27	.25	.39	9.5	9.0	2.3	1.4	.86
22	1.3	.72	.32	.30	.27	.25	.42	8.4	8.4	2.3	1.6	.81
23	.97	.70	.31	.30	.27	.25	.64	8.0	7.9	2.2	1.7	.81
24	.91	.68	.31	.30	.27	.25	.91	7.3	7.3	2.1	1.9	.77
25	.86	.67	.31	.30	.27	.25	1.1	7.0	6.7	2.2	2.0	.77
26	.88	.63	.31	.30	.27	.25	1.2	7.1	6.5	2.2	2.1	.75
27	.86	.63	.31	.30	.27	.25	1.2	6.5	6.1	2.2	1.9	.72
28	.81	.62	.31	.30	.25	.25	1.5	6.1	5.7	2.3	1.8	.69
29	.79	.59	.31	.30	---	.25	1.7	5.9	6.1	2.2	1.7	.68
30	.77	.59	.31	.30	---	.25	1.9	6.1	6.1	2.7	1.5	.68
31	.80	---	.31	.30	---	.24	---	7.4	---	4.4	1.5	---
TOTAL	33.80	20.47	12.53	9.41	7.89	8.04	16.57	226.7	399.7	99.4	62.0	29.05
MEAN	1.09	.68	.40	.30	.28	.26	.55	7.31	13.3	3.21	2.00	.97
MAX	1.4	.81	.59	.31	.29	.27	1.9	24	21	6.0	4.5	1.4
MIN	.77	.52	.31	.30	.25	.24	.23	1.4	5.7	2.1	1.3	.68
AC-FT	67	41	25	19	16	16	33	450	793	197	123	58

CAL YR 1986 TOTAL 1410.67 MEAN 3.86 MAX 26 MIN .31 AC-FT 2800
WTR YR 1987 TOTAL 925.56 MEAN 2.54 MAX 24 MIN .23 AC-FT 1840

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, CO

LOCATION.--Lat 40°56'15", long 106°20'16", in NE¼SW¼SE¼ sec.11, T.11 N., R.80 W., Jackson County, Hydrologic Unit 10180001, on right bank 350 ft downstream from bridge on State Highway 125, 0.8 mi upstream from Camp Creek, 4.2 mi northwest of Northgate, and 4.4 mi south of Colorado-Wyoming State line.

DRAINAGE AREA.--1,431 mi².

PERIOD OF RECORD.--May to November 1904 (published as "near Pinkhampton"), May 1915 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1916-21, 1929(M), 1930-32. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,810.39 ft above National Geodetic Vertical Datum of 1929. See WSP 1730 for history of changes prior to Apr. 8, 1918. Apr. 8, 1918, to Aug. 21, 1961, water-stage recorder, at site 0.8 mi downstream at datum 3.36 ft, lower. Aug. 22, 1961, to Sept. 18, 1984, at site 650 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Nov. 7, 10-16, Dec. 1-4, Dec. 10 to Apr. 11, and May 16, 17, 26. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 130,000 acres of hay meadows upstream from station. Transbasin diversions upstream from station to Cache la Poudre River basin.

AVERAGE DISCHARGE.--72 years, 445 ft³/s; 322,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,720 ft³/s, June 11, 1923, gage height, 6.24 ft, site and datum then in use; maximum gage height recorded, 9.65 ft, Apr. 25, 1980, (ice jam); minimum daily discharge, 19 ft³/s, July 17-19, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,120 ft³/s, June 10, gage height, 3.94 ft, maximum gage height, 4.78 ft, Apr. 9 (backwater from ice); minimum daily discharge, 52 ft³/s, Sept. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	293	301	210	101	85	107	150	947	403	410	300	99
2	284	326	230	97	87	115	158	971	355	366	254	84
3	322	342	248	93	91	121	175	871	336	340	217	72
4	384	321	265	97	93	128	195	736	342	284	186	70
5	379	306	285	99	91	136	233	598	347	270	162	75
6	343	296	303	95	90	143	290	502	397	247	144	80
7	316	280	250	87	95	150	370	426	440	225	132	81
8	285	240	279	82	100	158	485	389	554	193	149	75
9	281	121	177	78	104	162	556	357	887	173	169	68
10	275	188	142	77	109	167	550	355	1090	145	156	61
11	284	200	110	81	113	173	540	389	1040	142	138	57
12	277	170	120	84	117	178	521	423	909	185	130	59
13	281	194	130	85	120	183	492	448	821	381	120	54
14	282	230	140	82	123	193	463	485	743	416	116	52
15	280	256	153	79	119	203	468	485	719	339	116	54
16	265	287	159	75	116	198	620	520	682	278	124	68
17	254	316	164	69	114	193	842	600	597	255	121	81
18	234	368	159	66	113	188	938	726	550	247	102	89
19	229	421	151	67	113	182	1010	932	511	256	87	87
20	234	509	142	65	112	180	1040	780	462	223	77	79
21	245	506	134	63	109	176	896	891	432	199	78	71
22	271	454	131	64	110	170	710	884	392	203	85	64
23	294	408	127	65	109	167	709	884	380	191	100	66
24	325	387	119	66	107	161	857	924	353	191	112	61
25	325	365	114	68	106	157	1000	908	322	164	153	59
26	315	344	111	70	106	152	974	870	312	164	156	57
27	299	312	112	73	104	157	951	788	283	183	156	57
28	297	325	113	77	103	150	948	705	273	214	142	57
29	295	318	112	81	---	143	939	622	288	238	131	57
30	287	206	107	84	---	137	980	549	364	246	124	54
31	286	---	104	86	---	140	---	477	---	288	111	---
TOTAL	9021	9297	5101	2456	2959	4968	19060	20442	15584	7656	4348	2048
MEAN	291	310	165	79.2	106	160	635	659	519	247	140	68.3
MAX	384	509	303	101	123	203	1040	971	1090	416	300	99
MIN	229	121	104	63	85	107	150	355	273	142	77	52
AC-FT	17890	18440	10120	4870	5870	9850	37810	40550	30910	15190	8620	4060

CAL YR 1986 TOTAL 302425 MEAN 829 MAX 4620 MIN 104 AC-FT 599900
WTR YR 1987 TOTAL 102940 MEAN 282 MAX 1090 MIN 52 AC-FT 204200

06696000 SOUTH PLATTE RIVER NEAR LAKE GEORGE, CO

LOCATION.--Lat 38°54'19", long 105°28'22", in SW¼ sec.20, T.13 S., R.72 W., Park County, Hydrologic Unit 10190001, on left bank 700 ft downstream from Elevenmile Canyon Reservoir and 8.2 mi southwest of town of Lake George.

DRAINAGE AREA.--963 mi².

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1730: Drainage area.

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 8,458 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 26, 1940, at site 1 mi downstream at datum 8,423.95 ft, National Geodetic Vertical Datum, adjustment of 1912.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by transmountain diversions through East and West Hoosier ditches at Hoosier Pass prior to 1941, storage in Elevenmile Canyon Reservoir (see elsewhere in this report) and Antero Reservoir, capacity, 22,300 acre-ft, diversions for irrigation, and return flow from irrigated areas. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--58 years, 77.7 ft³/s; 56,290 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 3,000 ft³/s, Apr. 28, 1970, gage height, 8.34 ft, from floodmarks, by computation of outflow from Elevenmile Canyon Reservoir; no flow at times in January 1930, February 1931, and November 1935.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 546 ft³/s at 1400 June 12, gage height, 4.07 ft; minimum daily, 21 ft³/s, Nov. 4-7, 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	254	56	52	61	72	69	206	290	332	181	136
2	90	184	58	52	61	72	71	323	293	335	188	125
3	90	62	60	51	62	71	71	337	292	330	191	118
4	99	21	61	52	62	70	69	235	293	321	192	109
5	101	21	62	52	64	70	69	67	287	297	192	107
6	106	21	62	51	64	69	68	34	285	263	190	107
7	108	21	65	52	64	69	68	48	299	238	187	105
8	112	22	66	53	64	69	68	73	335	224	182	105
9	117	22	67	53	64	70	68	96	408	212	185	101
10	123	22	67	51	64	71	69	115	461	198	192	99
11	126	23	67	53	64	70	70	139	494	187	197	96
12	128	24	68	52	64	70	80	168	510	178	200	95
13	129	26	68	53	64	70	86	213	483	172	210	92
14	124	28	68	52	65	70	86	267	463	166	207	91
15	120	33	68	52	69	69	90	312	439	159	197	106
16	117	33	67	54	69	74	120	357	423	156	184	112
17	113	25	65	53	69	74	195	408	404	152	171	118
18	109	21	64	53	70	73	273	451	392	143	159	126
19	107	25	61	55	72	72	346	457	389	130	148	129
20	118	27	60	58	75	73	368	461	391	125	140	136
21	179	29	58	56	74	72	389	469	394	120	130	140
22	228	34	57	55	72	72	423	489	363	115	145	134
23	233	41	56	58	71	72	404	483	312	108	152	126
24	239	44	56	57	70	71	415	475	283	113	160	121
25	238	45	55	59	70	70	413	465	278	126	170	117
26	230	50	55	59	72	70	396	445	268	134	174	112
27	236	51	54	57	75	71	344	437	265	143	177	104
28	239	52	53	59	74	72	235	400	270	152	184	99
29	247	53	52	60	---	71	144	368	280	161	175	93
30	254	55	52	60	---	70	168	334	297	168	160	89
31	254	---	52	61	---	69	---	309	---	175	147	---
TOTAL	4802	1369	1880	1695	1889	2198	5735	9441	10641	5833	5467	3348
MEAN	155	45.6	60.6	54.7	67.5	70.9	191	305	355	188	176	112
MAX	254	254	68	61	75	74	423	489	510	335	210	140
MIN	86	21	52	51	61	69	68	34	265	108	130	89
AC-FT	9520	2720	3730	3360	3750	4360	11380	18730	21110	11570	10840	6640

CAL YR 1986 TOTAL 40829 MEAN 112 MAX 300 MIN 21 AC-FT 80980
WTR YR 1987 TOTAL 54298 MEAN 149 MAX 510 MIN 21 AC-FT 107700

06697200 FRENCH CREEK NEAR JEFFERSON, CO

LOCATION.--Lat 39°23'21", long 105°38'07", unsurveyed, Park County, Hydrologic Unit 10190001, on left bank 150 ft upstream from culverts under Forest Service road, 0.4 mi upstream from confluence with Michigan Creek, and 6.4 mi northwest of Jefferson.

DRAINAGE AREA.--4.63 mi².

PERIOD OF RECORD.--April 1986 to current year (irrigation season only).

GAGE.--Water-stage recorder. Elevation of gage is 10,190 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 1 to May 20. Records good except for estimated daily discharges, which are poor. No diversions upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF SEASONAL RECORD.--Maximum discharge, 52 ft³/s, June 19, 1986, gage height, 2.07 ft; minimum daily, 1.4 ft³/s, Apr. 1-8, 1987.

EXTREMES FOR CURRENT SEASON.--Maximum discharge, 47 ft³/s at 0100 June 9, gage height, 2.07 ft; minimum daily, 1.4 ft³/s, Apr. 1-8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	1.4	13	22	20	9.7	4.4
2	---	---	---	---	---	---	1.4	12	23	19	9.9	4.4
3	---	---	---	---	---	---	1.4	11	24	19	9.4	4.3
4	---	---	---	---	---	---	1.4	9.6	26	18	9.0	4.3
5	---	---	---	---	---	---	1.4	8.8	29	17	8.7	4.2
6	---	---	---	---	---	---	1.4	9.4	31	16	8.5	4.0
7	---	---	---	---	---	---	1.4	10	33	16	8.3	4.0
8	---	---	---	---	---	---	1.4	11	36	15	7.8	3.9
9	---	---	---	---	---	---	1.5	13	42	15	7.7	3.7
10	---	---	---	---	---	---	1.6	14	39	14	7.3	3.6
11	---	---	---	---	---	---	1.8	16	38	14	6.7	3.6
12	---	---	---	---	---	---	2.2	18	36	14	6.5	3.5
13	---	---	---	---	---	---	2.5	19	36	13	6.6	3.3
14	---	---	---	---	---	---	3.0	22	35	13	6.3	3.3
15	---	---	---	---	---	---	3.4	25	34	12	5.7	3.2
16	---	---	---	---	---	---	4.2	28	33	11	5.3	3.2
17	---	---	---	---	---	---	4.8	31	31	11	4.7	3.1
18	---	---	---	---	---	---	5.4	29	29	11	4.4	3.0
19	---	---	---	---	---	---	6.6	28	28	10	4.3	2.9
20	---	---	---	---	---	---	5.8	27	27	10	4.3	2.8
21	---	---	---	---	---	---	5.0	26	25	9.6	4.3	2.7
22	---	---	---	---	---	---	5.4	23	24	9.5	5.2	2.6
23	---	---	---	---	---	---	6.1	24	23	9.4	5.6	2.6
24	---	---	---	---	---	---	6.8	23	22	9.2	5.5	2.7
25	---	---	---	---	---	---	7.4	21	21	9.1	4.9	2.6
26	---	---	---	---	---	---	8.2	20	21	8.9	4.8	2.6
27	---	---	---	---	---	---	8.8	19	20	9.2	4.7	2.6
28	---	---	---	---	---	---	9.6	18	20	9.9	4.7	2.5
29	---	---	---	---	---	---	10	18	22	9.6	4.6	2.5
30	---	---	---	---	---	---	11	18	21	9.9	4.6	2.5
31	---	---	---	---	---	---	---	19	---	10	4.5	---
TOTAL	---	---	---	---	---	---	132.3	583.8	851	392.3	194.5	98.6
MEAN	---	---	---	---	---	---	4.41	18.8	28.4	12.7	6.27	3.29
MAX	---	---	---	---	---	---	11	31	42	20	9.9	4.4
MIN	---	---	---	---	---	---	1.4	8.8	20	8.9	4.3	2.5
AC-FT	---	---	---	---	---	---	262	1160	1690	778	386	196

06699000 ROCK CREEK NEAR JEFFERSON, CO

LOCATION.--Lat 35°17'29", long 105°41'43", in NE¼NE¼, Sec. 7, T.9 S., R.14 W., Park County Hydrologic Unit 10190001 on left bank 80 ft downstream from Park County Road 77, 1,000 ft upstream from mouth and 8.5 mi southeast of Jefferson, Colorado.

DRAINAGE AREA.--45.5 mi².

PERIOD OF RECORD.--May 1986 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,037 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 25 to May 20. Records good except for estimated daily discharges, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 147 ft³/s, June 9, 1987, gage height, 5.56 ft; minimum daily, 1.2 ft³/s, Feb. 22 to Mar. 31, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 147 ft³/s at 1100 June 9, gage height, 5.56 ft; minimum daily, 1.2 ft³/s, Feb. 22 to Mar. 31.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	3.6	3.6	2.9	1.8	1.2	1.4	19	40	33	5.5	3.5
2	4.9	3.6	3.6	2.9	1.7	1.2	1.7	20	42	26	5.4	3.6
3	5.0	3.6	3.6	2.8	1.7	1.2	2.2	15	37	23	5.2	3.5
4	5.6	3.6	3.6	2.8	1.7	1.2	2.7	13	37	21	5.0	3.5
5	5.3	3.6	3.6	2.7	1.7	1.2	3.2	9.8	38	20	4.7	3.6
6	4.8	3.6	3.6	2.7	1.6	1.2	4.0	9.8	34	18	4.4	3.3
7	4.4	3.6	3.6	2.7	1.6	1.2	5.0	9.8	33	18	4.9	3.2
8	4.2	3.6	3.6	2.6	1.6	1.2	5.2	10	41	17	4.9	3.2
9	4.3	3.6	3.6	2.6	1.5	1.2	5.5	11	128	16	5.0	3.1
10	4.2	3.6	3.6	2.5	1.5	1.2	5.8	13	101	15	5.8	3.0
11	4.1	3.6	3.6	2.5	1.5	1.2	6.1	15	67	14	4.7	3.0
12	3.8	3.6	3.6	2.4	1.5	1.2	6.5	17	67	17	4.9	3.0
13	4.0	3.6	3.6	2.4	1.4	1.2	6.8	19	58	16	5.6	2.9
14	4.2	3.6	3.6	2.4	1.4	1.2	7.2	22	56	13	5.4	2.9
15	3.9	3.6	3.6	2.3	1.4	1.2	7.6	25	51	11	4.9	2.9
16	3.9	3.6	3.6	2.3	1.4	1.2	8.0	29	49	10	4.5	2.9
17	3.9	3.6	3.6	2.3	1.3	1.2	20	34	44	9.5	4.2	2.9
18	3.8	3.6	3.6	2.2	1.3	1.2	45	39	42	12	3.9	2.8
19	3.9	3.6	3.6	2.2	1.3	1.2	100	45	42	8.9	3.8	2.7
20	4.4	3.6	3.6	2.2	1.3	1.2	45	50	40	8.1	3.7	2.7
21	4.8	3.6	3.5	2.1	1.3	1.2	21	58	37	7.7	3.7	2.7
22	4.1	3.6	3.5	2.1	1.2	1.2	11	66	35	7.1	4.3	2.7
23	4.0	3.6	3.4	2.0	1.2	1.2	11	75	33	6.7	5.2	2.7
24	3.9	3.6	3.4	2.0	1.2	1.2	12	102	31	6.5	9.4	2.6
25	3.6	3.6	3.3	2.0	1.2	1.2	12	84	28	6.2	4.9	2.6
26	3.6	3.6	3.2	1.9	1.2	1.2	13	59	28	6.0	4.2	2.6
27	3.6	3.6	3.2	1.9	1.2	1.2	14	49	26	6.0	4.1	2.6
28	3.6	3.6	3.2	1.9	1.2	1.2	15	45	25	6.0	3.9	2.6
29	3.6	3.6	3.1	1.8	---	1.2	16	48	33	6.9	3.9	2.7
30	3.6	3.6	3.1	1.8	---	1.2	17	46	51	6.0	3.8	2.7
31	3.6	---	3.0	1.8	---	1.2	---	46	---	5.5	3.6	---
TOTAL	129.8	108.0	107.9	71.7	39.9	37.2	430.9	1104.4	1382	397.1	147.4	88.7
MEAN	4.19	3.60	3.48	2.31	1.42	1.20	14.4	35.6	46.1	12.8	4.75	2.96
MAX	5.6	3.6	3.6	2.9	1.8	1.2	100	102	128	33	9.4	3.6
MIN	3.6	3.6	3.0	1.8	1.2	1.2	1.4	9.8	25	5.5	3.6	2.6
AC-FT	257	214	214	142	79	74	855	2190	2740	788	292	176

WTR YR 1987 TOTAL 4045.0 MEAN 11.1 MAX 128 MIN 1.2 AC-FT 8020

06699005 TARRYALL CREEK BELOW ROCK CREEK, NEAR JEFFERSON, CO

LOCATION.--Lat 39°27'13", long 105°41'43", in NW¼NW¼ sec.8, T.9 S., R.74 W., Park County, Hydrologic Unit 10190001, on left bank 1,800 ft downstream from Rock Creek, 1.0 mi northwest of Bordenville and 9 mi southeast of Jefferson.

DRAINAGE AREA.--230 mi².

PERIOD OF RECORD.--April 1983 to current year.

REVISED RECORDS.--WDR-CO-86-1: Drainage area; WDR-CO-87-1: 1986 (M).

GAGE.--Water-stage recorder. Elevation of gage is 9,020 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-22, Oct. 31 to Apr. 30, Sept. 16-23. Records good, except for estimated daily discharges, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 654 ft³/s, Apr. 19, 1987, gage height, 7.00 ft, from floodmarks; minimum daily, 5.0 ft³/s, Dec. 27 to Jan. 6, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 19	Unknown	*654	*a7.00	May 15	0300	259	4.57
June 9	1830	298	2.85	June 30	0500	225	4.32

Minimum daily discharge, 8.2 ft³/s, Feb. 24 to Mar. 31.

PEAK DISCHARGES FOR WATER YEARS 1983 TO 1986.--Peak discharges greater than base discharge of 200 ft³/s, and maximum (*):

Year	Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
1983	June 28	0115	*560	*6.47	July 12	0630	479	6.00
	Aug. 5	2000	213	4.17				
1984	June 7	2200	304	4.54	July 10	2000	320	4.10
	July 28	0530	*503	*5.06	Aug. 25	0400	273	4.40
1985	June 10	1215	*271	*4.16	July 21	1330	263	4.13
1986	June 9	2200	*b302	*b4.23	July 7	0600	246	4.13

a From high-water mark.
b Revised.

06699005 TARRYALL CREEK BELOW ROCK CREEK, NEAR JEFFERSON, CO--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	23	17	15	10	8.2	9.0	142	102	146	78	44
2	31	22	17	14	10	8.2	9.9	149	102	105	82	45
3	32	22	17	14	10	8.2	11	123	103	96	73	43
4	34	21	17	14	10	8.2	12	108	107	90	70	43
5	35	21	17	14	10	8.2	13	98	110	86	62	45
6	32	20	17	14	9.9	8.2	15	98	116	84	57	41
7	30	20	17	14	9.8	8.2	16	99	129	80	65	39
8	29	19	17	13	9.7	8.2	17	99	153	79	60	39
9	28	19	17	13	9.6	8.2	17	103	273	78	65	36
10	28	19	17	13	9.5	8.2	17	111	252	72	77	33
11	27	18	17	13	9.4	8.2	18	119	181	67	58	32
12	26	18	17	13	9.3	8.2	18	123	162	78	58	33
13	27	17	17	13	9.2	8.2	19	147	149	77	67	31
14	29	17	17	13	9.1	8.2	19	182	153	78	65	31
15	29	17	17	13	9.0	8.2	20	236	156	76	48	31
16	28	17	17	12	8.9	8.2	20	196	152	66	39	31
17	28	17	17	12	8.8	8.2	74	206	128	59	33	31
18	28	17	17	12	8.7	8.2	200	197	118	68	31	31
19	30	17	17	12	8.6	8.2	540	189	117	57	31	31
20	32	17	16	12	8.5	8.2	310	188	111	51	34	31
21	35	17	16	12	8.4	8.2	180	188	105	50	38	31
22	38	17	16	12	8.3	8.2	100	189	102	50	54	31
23	34	17	16	11	8.3	8.2	100	183	99	54	83	31
24	31	17	16	11	8.2	8.2	105	196	95	63	92	25
25	28	17	16	11	8.2	8.2	108	195	93	64	79	25
26	26	17	15	11	8.2	8.2	111	157	95	62	65	24
27	24	17	15	11	8.2	8.2	115	134	96	64	59	25
28	25	17	15	11	8.2	8.2	119	120	94	76	54	25
29	24	17	15	11	---	8.2	123	109	134	80	53	24
30	24	17	15	11	---	8.2	127	107	208	79	48	25
31	23	---	15	11	---	8.2	---	102	---	82	46	---
TOTAL	906	548	509	386	254.0	254.2	2562.9	4593	3995	2317	1824	987
MEAN	29.2	18.3	16.4	12.5	9.07	8.20	85.4	148	133	74.7	58.8	32.9
MAX	38	23	17	15	10	8.2	540	236	273	146	92	45
MIN	23	17	15	11	8.2	8.2	9.0	98	93	50	31	24
AC-FT	1800	1090	1010	766	504	504	5080	9110	7920	4600	3620	1960

CAL YR 1986 TOTAL 14979.8 MEAN 41.0 MAX 253 MIN 5.0 AC-FT 29710
WTR YR 1987 TOTAL 19136.1 MEAN 52.4 MAX 540 MIN 8.2 AC-FT 37960

RESERVOIRS IN SOUTH PLATTE RIVER BASIN

06695500 ELEVENMILE CANYON RESERVOIR.--Lat 38°54'19", long 105°28'30", in N>SW¼ sec.20, T.13 S., R.72 W., Park County, Hydrologic Unit 10190001, at north end of dam on South Platte River, 8 mi southwest of Lake George. DRAINAGE AREA, 963 mi². PERIOD OF RECORD, October 1932 to current year. Prior to September 1938, published in WSP 1310. REVISED RECORDS, WSP 1730: Drainage area. GAGE, nonrecording gage read twice daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Denver Board of Water Commissioners); gage readings have been reduced to elevations above National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete arch dam; storage began in October 1932; dam completed in November 1932. Spillway built 5.00 ft, higher, Aug. 1, 1957. Capacity, 97,780 acre-ft, between elevations 8,488.25 ft, invert of outlet pipe, and 8,597.00 ft, crest of spillway. Dead storage is negligible. Figures given represent total contents. Water is for municipal use by city of Denver. Records provided by Denver Board of Water Commissioners.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 111,200 acre-ft, Apr. 28, 1970, elevation, 8,600.82 ft; no contents at times in 1935.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 103,600 acre-ft, May 21, 22, June 11, 12, elevation, 8,598.68 ft; minimum observed, 96,930 acre-ft, Nov. 2, elevation, 8,596.75 ft.

06701000 CHEESMAN LAKE.--Lat 39°12'26", long 105°16'18", in NW¼SW¼ sec.6, T.10 S., R.70 W., Douglas County, Hydrologic Unit 10190002, at dam on South Platte River, 4.1 mi southwest of Deckers. DRAINAGE AREA, 1,752 mi². PERIOD OF RECORD, September 1900 to December 1901, September 1902 to current year. Prior to October 1938, published in WSP 1310. Published as Lake Cheesman prior to 1947. REVISED RECORDS, WSP 1730: Drainage area. GAGE, nonrecording gage read twice daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Denver Board of Water Commissioners).

Reservoir is formed by masonry dam. Storage began September 1900. Dam completed about October 1902. Capacity, 79,060 acre-ft at gage height 212 ft, spillway crest, above sill of lowest gate. No dead storage. Figures given represent total contents. Water is for municipal use by city of Denver. Records provided by Denver Board of Water Commissioners.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 81,360 acre-ft, Apr. 29, 1970, gage height, 214.60 ft; minimum observed since appreciable storage was attained, 3,650 acre-ft, Apr. 20, 1933, gage height, 55.02 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 80,160 acre-ft, May 24, gage height, 213.25 ft; minimum observed, 38,850 acre-ft, Oct. 1, gage height, 155.98 ft.

MONTHEND ELEVATION IN FEET AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation a(feet)	Contents (acre-feet)	Change in contents (acre-feet)	Gage height (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	06695500	ELEVENMILE CANYON RESERVOIR		06701000	CHEESMAN LAKE	
Sept. 30...........	8,597.58	99,760	-	155.98	38,850	-
Oct. 31...........	8,596.87	97,340	-2,420	168.68	46,520	+7,670
Nov. 30...........	8,597.45	99,320	+1,980	169.74	47,200	+680
Dec. 31...........	8,597.42	99,210	-110	171.18	48,120	+920
CAL YR 1986...	-	-	0	-	-	-26,480
Jan. 31............	8,597.45	99,320	+110	173.79	49,830	+1,710
Feb. 28............	8,597.52	99,560	+240	177.07	52,030	+2,200
Mar. 31............	8,597.51	99,520	-40	180.70	54,530	+2,500
Apr. 30............	8,597.04	97,920	-1,600	208.85	76,340	+21,810
May 31............	8,598.21	101,900	+3,980	212.90	79,850	+3,510
June 30............	8,598.34	102,400	+500	212.92	79,870	+20
July 31............	8,597.89	100,800	-1,600	203.33	71,710	-8,160
Aug. 31............	8,597.77	100,400	-400	181.28	54,930	-16,780
Sept.30............	8,597.62	99,900	-500	169.30	46,920	-8,010
WTR YR 1987....	-	-	+140	-	-	+8,070

a National Geodetic Vertical Datum of 1929.

06701500 SOUTH PLATTE RIVER BELOW CHEESMAN LAKE, CO

LOCATION.--Lat 39°12'33", long 105°16'02", in SE¼NW¼ sec.6, T.10 S., R.70 W., Jefferson County, Hydrologic Unit 10190002, on left bank 1,400 ft downstream from toe of Cheesman Dam and 3.8 mi southwestof Deckers.

DRAINAGE AREA.--1,752 mi^2.

PERIOD OF RECORD.--October 1924 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1949. WSP 1730: Drainage area.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 6,609.29 ft above National Geodetic Vertical Datum of 1929. Prior to May 14, 1956, at site 370 ft upstream at datum 0.50 ft, higher.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by minor transmountain diversion from Colorado River basin through Boreas Pass ditch, Elevenmile Canyon Reservoir and Cheesman Lake (see elsewhere in this report), diversions for irrigation of about 40,000 acres, and return flow from irrigated areas. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--63 years, 169 ft^3/s; 122,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,640 ft^3/s, Apr. 29, 1970, gage height, 13.4 ft, from floodmarks, by computation of outflow from Cheesman Lake; minimum daily determined, 1.6 ft^3/s, Apr. 8-14, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,460 ft^3/s at 0400 May 25, gage height, 5.12 ft; minimum daily, 26 ft^3/s, Jan. 24-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	151	216	99	54	58	38	92	264	713	742	571	365
2	151	272	99	54	58	38	92	205	677	706	646	405
3	151	269	101	56	58	38	92	231	663	625	642	408
4	151	181	101	57	58	38	92	571	660	564	639	408
5	151	63	99	57	58	60	94	588	660	522	660	408
6	151	65	99	57	58	96	94	608	660	472	724	408
7	151	65	99	57	58	108	94	639	681	429	742	385
8	151	65	99	58	58	108	84	625	753	399	739	319
9	151	65	99	58	58	108	77	622	950	374	735	287
10	138	65	89	58	58	101	79	618	1270	351	731	287
11	115	65	82	58	58	86	79	653	1360	332	728	287
12	96	65	82	42	58	86	81	702	1240	332	695	340
13	89	65	82	32	58	86	81	750	1090	335	611	382
14	82	65	82	32	58	86	79	817	986	319	541	382
15	58	65	82	32	60	86	56	966	914	303	538	279
16	58	65	82	32	60	87	34	1180	859	292	581	128
17	58	65	66	32	60	87	34	1310	805	285	681	86
18	58	66	58	32	60	79	34	1410	757	282	728	140
19	58	66	57	32	60	60	34	1420	728	259	728	212
20	58	66	57	32	60	60	35	1380	717	403	724	128
21	58	66	57	32	60	60	87	1390	688	456	720	146
22	58	66	57	32	60	124	172	1430	656	475	717	240
23	58	66	57	28	60	162	210	1430	608	525	581	316
24	58	66	57	26	60	162	311	1370	554	632	319	332
25	60	66	57	26	48	162	500	1440	509	684	149	365
26	60	66	57	26	38	134	660	1340	500	639	113	368
27	60	66	57	26	38	91	625	1150	493	591	176	371
28	60	82	57	31	38	92	681	1030	481	588	238	374
29	60	99	54	42	---	92	713	910	535	615	252	374
30	62	99	54	52	---	92	456	817	646	554	252	377
31	92	---	54	58	---	92	---	764	---	490	272	---
TOTAL	2913	2721	2332	1301	1574	2799	5852	28630	22813	14575	17173	9307
MEAN	94.0	90.7	75.2	42.0	56.2	90.3	195	924	760	470	554	310
MAX	151	272	101	58	60	162	713	1440	1360	742	742	408
MIN	58	63	54	26	38	38	34	205	481	259	113	86
AC-FT	5780	5400	4630	2580	3120	5550	11610	56790	45250	28910	34060	18460

CAL YR 1986 TOTAL 88221 MEAN 242 MAX 809 MIN 25 AC-FT 175000
WTR YR 1987 TOTAL 111990 MEAN 307 MAX 1440 MIN 26 AC-FT 222100

06706000 NORTH FORK SOUTH PLATTE RIVER BELOW GENEVA CREEK, AT GRANT, CO

LOCATION.--Lat 39°27'26", long 105°39'29", in NW¼ sec.10, T.7 S., R.74 W., Park County, Hydrologic Unit 10190002, on left bank at Grant, 1,550 ft downstream from Geneva Creek, and 1.3 mi downstream from east portal of Harold D. Roberts tunnel.

DRAINAGE AREA.--127 mi².

PERIOD OF RECORD.--July 1908 to November 1913 (published as "at Cassells"). June 1942 to current year. Monthly discharge only for some periods, published in WSP 1310. December 1913 to March 1918, equivalent records may be obtained by summation of flow of North Fork South Platte River at Grant (above Geneva Creek) and Geneva Creek at Grant.

REVISED RECORDS.--WSP 956: Drainage area at site at Cassells. WSP 1116: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 8,560.81 ft above National Geodetic Vertical Datum of 1929, adjustment of 1960. See WSP 1710 or 1730 for history of changes prior to July 23, 1948. July 23, 1948, to Nov. 15, 1968, water-stage recorder at site 50 ft downstream at datum 3.49 ft, lower.

REMARKS.--Estimated daily discharges: Oct. 12-14, 24-26, Nov. 2, 3, 5, 6, 8-10, Mar. 29 to Apr. 1, and Apr. 12, 13. Records good except for estimated daily discharges, which are poor. Small diversions upstream from station for irrigation of about 200 acres. Diversions from Colorado River basin to North Fork South Platte River upstream from station through Harold D. Roberts tunnel (see elsewhere in this report). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--49 years (water years 1909-13, 1943-87), 70.9 ft³/s; 51,370 acre-ft/yr, adjusted for inflow from Harold D. Roberts tunnel since 1964.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 990 ft³/s, June 7, 8, 1912, gage height, 3.30 ft, site and datum then in use, from rating curve extended above 530 ft³/s; maximum gage height, 4.72 ft, site and datum then in use, Feb. 11, 1952 (backwater from ice); minimum daily discharge, 6.5 ft³/s, Nov. 27, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 515 ft³/s at 0400 June 9, gage height, 1.82 ft; minimum daily, 18 ft³/s, Mar. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	31	33	88	88	88	22	150	222	197	91	52
2	47	34	34	88	88	88	21	153	225	184	94	53
3	49	34	34	88	88	88	21	124	225	166	86	55
4	52	34	33	91	88	88	19	112	246	138	85	50
5	49	34	31	91	88	68	19	109	269	138	79	47
6	49	36	27	91	88	31	19	109	277	130	76	44
7	49	34	27	91	89	23	21	119	304	128	79	44
8	46	45	54	91	88	22	22	138	335	130	68	45
9	45	54	98	91	88	21	22	195	475	125	65	42
10	46	70	94	91	88	21	24	217	417	118	70	42
11	44	70	97	88	88	19	26	221	378	115	65	41
12	45	103	97	91	87	19	24	202	378	131	70	39
13	45	115	97	91	88	19	26	245	362	123	68	39
14	44	58	97	88	88	21	26	298	344	114	67	41
15	41	45	99	88	87	19	34	326	326	106	61	42
16	39	42	99	88	88	19	42	385	323	103	56	42
17	38	43	100	85	88	19	52	384	304	103	55	46
18	36	44	97	85	87	19	65	355	290	111	52	41
19	39	43	100	85	88	19	79	337	290	97	55	38
20	44	39	101	85	88	19	117	324	276	88	49	38
21	42	38	98	85	85	21	134	320	250	88	45	37
22	39	42	94	88	85	21	82	287	239	85	82	37
23	42	34	94	88	88	18	103	282	237	85	106	38
24	41	41	97	88	88	20	109	294	230	79	110	37
25	36	39	94	88	88	22	103	255	215	82	82	40
26	37	39	94	88	88	21	102	228	208	88	70	36
27	34	37	91	88	88	27	97	211	202	88	65	36
28	34	36	92	88	88	27	115	202	195	95	63	34
29	34	35	91	88	---	23	134	192	230	93	60	34
30	34	34	91	88	---	22	138	188	230	88	56	34
31	36	---	91	88	---	21	---	192	---	94	52	---
TOTAL	1301	1383	2476	2740	2456	973	1818	7154	8502	3510	2182	1244
MEAN	42.0	46.1	79.9	88.4	87.7	31.4	60.6	231	283	113	70.4	41.5
MAX	52	115	101	91	89	88	138	385	475	197	110	55
MIN	34	31	27	85	85	18	19	109	195	79	45	34
AC-FT	2580	2740	4910	5430	4870	1930	3610	14190	16860	6960	4330	2470

CAL YR 1986 TOTAL 32478 MEAN 89.0 MAX 427 MIN 16 AC-FT 64420
WTR YR 1987 TOTAL 35739 MEAN 97.9 MAX 475 MIN 18 AC-FT 70890

06708750 EAST PLUM CREEK AT CASTLE ROCK, CO.

LOCATION.--Lat 39°23'04", long 104°51'42", in SE¼NW¼ Sec.2, T.8 S., R.67 W., Douglas County, Hydrologic Unit 10190002, on right bank, 1,600 ft upstream from unnamed tributary, at Castle Rock.

DRAINAGE AREA.--102 mi^2.

PERIOD OF RECORD.--August 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,120 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 11-22, 24-26, 28-31, Jan. 2-9, 11-23, 29, 30, and Mar. 30. Records poor. Diversions upstream from station for irrigation. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 453 ft^3/s, Sept. 11, 1985, gage height, 7.85 ft; minimum daily, 0.50 ft^3/s, Aug. 19-22, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 392 ft^3/s at 1730 May 14, gage height, 6.94 ft; minimum daily, 1.5 ft^3/s, Aug. 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	8.1	4.0	4.9	6.6	6.6	16	67	57	33	4.1	8.9
2	1.7	4.1	6.5	4.9	7.3	6.8	19	66	49	35	3.6	7.7
3	2.7	3.8	5.5	4.9	8.4	7.8	18	113	49	38	4.2	7.1
4	2.8	4.4	6.1	4.9	7.3	8.3	20	109	46	20	3.8	6.2
5	2.2	3.9	7.8	4.9	7.1	10	19	97	47	16	2.7	6.3
6	1.9	3.7	7.2	4.6	5.9	13	18	185	46	12	2.4	8.4
7	1.7	4.4	6.9	4.2	6.5	13	17	227	46	19	3.0	6.2
8	1.7	3.3	5.2	3.9	7.6	18	16	200	46	11	4.3	7.9
9	2.0	3.8	4.9	3.6	7.3	13	16	198	75	11	6.2	6.5
10	3.0	4.3	4.7	3.4	8.1	12	17	172	63	10	6.4	6.1
11	6.1	4.1	4.9	3.5	8.7	12	16	155	50	11	3.6	7.6
12	3.2	3.3	5.0	3.7	8.4	11	20	144	47	15	3.9	7.7
13	3.3	3.6	5.4	3.8	8.1	13	24	120	38	14	4.2	7.0
14	3.9	4.4	6.0	4.0	10	18	23	129	30	12	3.5	8.5
15	2.8	4.4	6.4	4.2	9.0	19	28	141	28	9.5	2.2	7.3
16	2.6	4.7	6.8	4.4	8.4	18	30	104	26	7.6	1.9	7.7
17	2.8	4.4	6.8	4.5	7.3	17	33	114	23	7.6	1.8	7.6
18	2.7	4.5	6.7	4.7	6.5	14	31	138	17	7.1	1.8	8.0
19	3.6	4.6	6.6	4.9	6.3	13	37	116	21	6.6	1.7	7.6
20	4.9	4.7	6.5	5.1	5.8	15	50	113	24	5.8	1.6	6.8
21	3.9	4.6	6.4	5.4	3.7	13	49	120	22	4.6	1.5	6.0
22	4.0	4.6	6.3	5.6	5.2	13	48	119	19	4.0	28	4.3
23	3.7	4.9	6.2	5.8	6.1	12	52	96	16	4.4	15	3.7
24	3.9	4.5	6.0	6.0	6.5	11	51	93	21	3.5	10	3.4
25	3.5	4.4	5.8	7.2	5.3	9.4	58	100	20	6.3	14	2.9
26	3.5	4.4	5.6	7.1	3.9	11	61	87	21	4.2	23	3.1
27	3.4	4.0	5.6	9.9	4.1	12	66	80	18	3.9	45	3.4
28	3.6	4.0	5.4	8.4	5.9	7.5	62	75	15	5.5	15	3.5
29	3.7	3.7	5.3	9.1	---	9.3	71	69	31	5.8	10	3.9
30	3.7	3.0	5.1	7.8	---	11	69	68	47	5.2	7.9	3.8
31	5.3	---	5.0	7.0	---	14	---	65	---	4.9	8.2	---
TOTAL	99.7	128.6	182.6	166.3	191.3	381.7	1055	3680	1058	353.5	244.5	185.1
MEAN	3.22	4.29	5.89	5.36	6.83	12.3	35.2	119	35.3	11.4	7.89	6.17
MAX	6.1	8.1	7.8	9.9	10	19	71	227	75	38	45	8.9
MIN	1.7	3.0	4.0	3.4	3.7	6.6	16	65	15	3.5	1.5	2.9
AC-FT	198	255	362	330	379	757	2090	7300	2100	701	485	367

WTR YR 1987 TOTAL 7726.3 MEAN 21.2 MAX 227 MIN 1.5 AC-FT 15330

06709500 PLUM CREEK NEAR LOUVIERS, CO

LOCATION.--Lat 39°29'04", long 105°00'07", in SE¼ sec.33, T.6 S., R.68 W., Douglas County, Hydrologic Unit 10190002, on downstream side of bridge on county road from U.S. Highway 85 to Louviers, 0.8 mi northeast of Louviers, 1.2 mi downstream from Indian Creek, and 7.5 mi upstream from mouth.

DRAINAGE AREA.--302 mi².

PERIOD OF RECORD.--October 1947 to current year.

REVISED RECORDS.--WSP 1730: 1958, drainage area at site 2.5 mi downstream. WSP 1918: 1957(M).

GAGE.--Water-stage recorder. Elevation of gage is 5,585 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Feb. 12, 1957, at site 2.5 mi downstream, and Nov. 7, 1965, to Aug. 6, 1966, at site 2.2 mi downstream at different datums. Feb. 12, 1957, to Nov. 6, 1965, at present site at about present datum. Low-flow records may not be equivalent with station 06709530 Plum Creek at Titan Road near Louviers, located at former site, because of possible undetermined losses between sites.

REMARKS.--Estimated daily discharges: Dec. 10 to Jan. 1, Jan. 17-21, Mar. 15-17, Mar. 21 to Apr. 11, May 20 to June 24, Aug. 16, Sept. 19-20. Records poor. Diversions upstream from station for irrigation. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--40 years, 34.9 ft³/s; 25,290 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 154,000 ft³/s, June 16, 1965, gage height, 22.4 ft, from floodmarks, by slope-area measurement of peak flow; no flow at times in 1951-52, 1956-60, 1963-64.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharges of 220 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 70	0500	*1,340	*3.93	June 9	1900	307	2.92
Aug. 22	1930	292	2.90				

Minimum daily, 0.82 ft³/s, Aug. 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	29	4.9	15	26	16	20	314	125	82	5.3	17
2	5.1	20	12	13	46	32	20	292	130	51	5.3	13
3	11	13	10	11	31	42	24	401	134	90	5.1	13
4	27	12	18	11	19	44	25	427	130	31	4.9	12
5	36	9.1	25	11	20	42	32	427	139	30	4.7	20
6	38	8.5	21	11	18	54	32	836	97	28	4.1	25
7	42	9.5	23	11	20	72	36	1220	112	29	3.8	23
8	36	9.1	20	9.8	19	63	43	1100	82	42	4.8	30
9	34	7.0	21	4.9	16	103	43	962	186	31	16	20
10	30	9.8	21	6.2	14	112	44	810	125	11	13	15
11	46	11	21	6.2	17	101	52	726	96	13	5.2	14
12	34	9.5	21	7.2	27	106	59	683	104	30	3.8	17
13	13	7.3	21	7.0	27	86	65	599	101	61	3.7	14
14	13	11	20	7.2	33	91	53	588	55	40	4.5	16
15	10	9.5	20	6.7	25	72	76	510	59	42	3.5	25
16	7.7	7.3	20	6.7	20	54	117	445	45	61	2.3	19
17	6.5	11	20	7.2	13	42	96	419	44	41	1.2	18
18	5.5	16	20	7.4	21	19	112	402	45	26	1.8	20
19	7.0	17	20	6.8	11	14	106	327	40	26	1.8	12
20	9.8	12	20	6.4	13	18	206	350	54	23	1.3	13
21	8.2	9.5	20	8.0	14	17	207	360	59	19	1.6	14
22	6.5	14	20	9.1	15	16	188	350	63	20	64	15
23	6.4	16	20	8.2	22	16	220	320	47	23	57	15
24	8.1	16	20	7.0	27	18	214	290	51	16	17	17
25	8.8	15	20	6.5	20	20	234	295	31	15	11	15
26	8.5	10	20	6.2	12	20	262	260	35	12	34	14
27	9.8	5.6	20	7.0	13	18	277	230	40	12	72	14
28	9.8	5.5	20	22	18	16	314	200	26	11	25	14
29	9.5	5.3	20	21	---	16	285	170	81.5	12	24	13
30	8.2	2.9	20	22	---	18	314	160	123	8.3	22	14
31	8.8	---	18	21	---	20	---	150	---	7.5	20	---
TOTAL	508.7	338.4	596.9	310.7	577	1378	3776	14623	2459.5	943.8	443.7	501
MEAN	16.4	11.3	19.3	10.0	20.6	44.5	126	472	82.0	30.4	14.3	16.7
MAX	46	29	25	22	46	112	314	1220	186	90	72	30
MIN	4.5	2.9	4.9	4.9	11	14	20	150	26	7.5	1.2	12
AC-FT	1010	671	1180	616	1140	2730	7490	29000	4880	1870	880	994

CAL YR 1986 TOTAL 7736.9 MEAN 21.2 MAX 115 MIN .22 AC-FT 15350
WTR YR 1987 TOTAL 26456.7 MEAN 72.5 MAX 1220 MIN 1.2 AC-FT 52480

06709530 PLUM CREEK AT TITAN ROAD NEAR LOUVIERS, CO.

LOCATION.--Lat 39°30'27", long 105°01'26", on line between sec.20 and sec.29, T.6 S., R.68 W., Douglas County, Hydrologic Unit 10190002, on upstream side of bridge on Titen Road, 2.4 mi north of Louviers.

DRAINAGE AREA.--315 mi^2.

PERIOD OF RECORD.--May 1, 1984 to current year. Low-flow records may not be equivalent with station 06709500 Plum Creek near Louviers because of possible undetermined channel losses between sites.

REVISED RECORDS.--WDR CO-86-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,520 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 4-10, Oct. 20 to Nov. 1, 10-14, Nov. 30 to Mar. 16, Mar. 19 to May 4, Aug. 5-7, 17-21. Records poor due to unstable channel conditions. Diversions upstream from station for irrigation. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 2,300 ft^3/s, May 15, 1984, gage height, 7.00 ft; maximum gage-height, 7.52 ft (corrected), Dec. 25, 1985 (backwater from ice); minimum daily discharge, 0.13 ft^3/s, Aug. 31, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,350 ft^3/s at 1345 May 7, gage height, 5.75 ft; minimum daily, 0.16 ft^3/s, Aug. 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	30	9.6	14	30	16	19	320	103	52	2.4	13
2	5.7	26	9.6	13	45	30	20	310	113	37	.51	9.1
3	11	17	9.6	11	31	40	24	403	126	49	.40	9.6
4	23	14	14	10	24	42	26	405	113	28	1.1	11
5	35	10	14	10	21	45	29	324	113	30	.40	9.1
6	38	12	14	10	20	55	32	773	129	28	.42	7.6
7	42	17	14	10	20	70	34	1290	113	28	.44	8.1
8	36	11	14	10	19	60	39	638	116	25	1.4	10
9	34	5.0	14	7.0	17	100	42	813	171	24	18	15
10	30	7.0	14	7.0	16	110	46	887	143	22	18	15
11	43	10	14	7.0	23	100	50	815	116	18	11	16
12	11	9.0	14	7.0	27	105	55	729	137	27	10	13
13	7.1	7.0	14	7.0	30	80	60	706	101	29	14	10
14	10	11	14	7.0	33	73	53	663	60	29	10	8.9
15	8.6	7.6	14	7.0	28	62	57	573	63	31	5.0	17
16	7.0	7.0	14	7.0	23	50	80	420	70	33	1.1	8.7
17	6.5	7.5	14	7.0	17	48	95	316	54	26	.22	16
18	6.5	10	14	7.0	21	37	110	279	74	29	.20	12
19	8.6	15	14	7.0	18	18	130	224	50	15	.18	8.9
20	11	12	14	7.0	15	18	170	242	50	15	.17	11
21	10	15	14	7.0	15	18	190	315	41	13	.16	12
22	8.4	15	14	7.0	15	18	200	351	42	8.6	88	9.1
23	8.6	15	14	7.0	17	18	210	280	37	7.6	75	8.6
24	9.4	13	14	7.0	20	18	220	264	33	7.5	57	10
25	9.8	11	14	7.0	16	18	240	284	37	8.1	16	8.1
26	9.4	12	14	7.0	16	18	260	253	34	5.0	31	6.5
27	11	10	14	7.0	16	18	352	224	32	3.5	55	7.0
28	10	7.6	14	20	16	18	320	190	25	4.9	17	8.0
29	11	9.6	14	20	---	18	300	157	52	7.5	13	8.6
30	12	9.6	14	20	---	18	320	157	74	3.9	15	8.1
31	15	---	14	20	---	18	---	135	---	3.3	14	---
TOTAL	491.8	362.9	420.8	301.0	609	1357	3783	13740	2422	647.9	476.10	319.0
MEAN	15.9	12.1	13.6	9.71	21.7	43.8	126	443	80.7	20.9	15.4	10.6
MAX	43	30	14	20	45	110	352	1290	171	52	88	17
MIN	3.2	5.0	9.6	7.0	15	16	19	135	25	3.3	.16	6.5
AC-FT	975	720	835	597	1210	2690	7500	27250	4800	1290	944	633

CAL YR 1986 TOTAL 7250.75 MEAN 19.9 MAX 110 MIN .13 AC-FT 14380
WTR YR 1987 TOTAL 24930.50 MEAN 68.3 MAX 1290 MIN .16 AC-FT 49450

06709600 CHATFIELD LAKE NEAR LITTLETON, CO

LOCATION.--Lat 39°33'26", long 105°03'27", in NW¼SE¼ sec.1, T.6 S., R.69 W., Jefferson County, Hydrologic Unit 10190002, near left end of dam on South Platte River at mouth of Plum Creek and 4.7 mi southwest of courthouse in Littleton.

DRAINAGE AREA.--3,018 mi^2.

PERIOD OF RECORD.--Contents, May 1975 to current year. Water-quality data available, October 1976 to September 1981.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army, Corps of Engineers); gage readings have been reduced to elevations above National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam. Storage began May 29, 1975. Capacity, 235,000 acre-ft at elevation 5,500 ft, crest of spillway. No dead storage. Figures given represent total contents. Reservoir is for flood control and recreation.

COOPERATION.--Records provided by U.S. Army, Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 54,690 acre-ft, May 26, 1980, elevation, 5,447.58 ft; no contents prior to May 29, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 31,640 acre-ft, May 8, elevation, 5,434.36 ft; minimum, 17,300 acre-ft, Nov. 17, elevation, 5,424.46 ft.

MONTHEND ELEVATION AND CONTENTS, AT 1200, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.	5,425.56	18,510	-
Oct. 31.	5,426.58	19,690	+1,180
Nov. 30.	5,425.93	18,930	-760
Dec. 31.	5,428.38	21,870	+2,940
CAL YR 1986.	-	-	-4,280
Jan. 31.	5,429.71	23,580	+1,710
Feb. 28.	5,432.04	*28,210	+4,630
Mar. 31.	5,432.29	28,570	+360
Apr. 30.	5,431.91	28,030	-540
May 31.	5,431.98	28,120	+90
June 30.	5,430.27	25,750	-2,370
July 31.	5,427.04	21,550	-4,200
Aug. 31.	5,428.94	23,970	+2,420
Sept. 30.	5,428.14	22,940	-1,030
WTR YR 1987	-	-	+4,430

* Based on new capacity table.

06710385 BEAR CREEK ABOVE EVERGREEN, CO

LOCATION.--Lat 39°37'58", long 105°19'59", in SE¼NE¼ Sec.9, T.5 S., R.71 W., Jefferson County, Hydrologic Unit 10190002, on right bank 0.6 mi upstream of Evergreen Lake dam at Evergreen.

DRAINAGE AREA.--104 mi².

PERIOD OF RECORD.--August 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage 7,076 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 1, 1986, at site 200 ft downstream at present datum.

REMARKS.--Estimated daily discharges: Nov. 9 to Mar. 8, Sept. 25-30. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by small diversions for irrigation. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 388 ft³/s, Aug. 26, 1984, gage height 3.80 ft, site then in use; minimum daily, 12 ft³/s, Feb. 17 to Mar. 3, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 312 ft³/s at 0400 May 16, gage height, 4.02 ft; minimum daily, 12 ft³/s, Feb. 17 to Mar. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	23	23	18	14	12	27	235	158	106	65	41
2	27	29	23	18	14	12	45	228	154	96	51	42
3	30	30	23	18	13	12	31	216	145	91	51	43
4	29	26	22	18	13	15	31	200	144	88	49	41
5	30	25	22	17	13	17	29	204	145	86	44	41
6	28	27	22	17	13	19	29	223	148	80	41	39
7	28	26	22	17	13	21	32	231	147	78	43	39
8	28	24	22	17	13	24	35	236	154	76	42	42
9	35	24	22	17	13	24	38	246	243	73	42	38
10	32	24	21	17	13	29	38	245	204	69	55	36
11	32	24	21	16	13	26	40	247	175	68	43	36
12	27	23	21	16	13	26	43	232	183	78	42	37
13	28	23	21	16	13	29	36	239	173	78	44	35
14	29	23	21	16	13	29	43	240	166	68	45	34
15	28	22	21	16	13	25	57	255	155	64	38	33
16	29	22	20	16	13	21	72	276	150	61	35	34
17	30	22	20	16	12	22	89	262	141	60	33	34
18	30	22	20	15	12	28	111	249	136	70	32	31
19	31	22	20	15	12	27	129	239	133	58	31	29
20	43	21	20	15	12	23	138	236	126	54	30	27
21	36	21	20	15	12	28	123	260	121	53	31	27
22	32	21	19	15	12	22	121	236	114	51	47	25
23	36	21	19	15	12	24	133	234	111	51	64	25
24	33	21	19	14	12	24	148	264	107	48	89	25
25	26	21	19	14	12	29	162	244	102	47	62	25
26	26	22	19	14	12	28	173	230	99	45	53	25
27	26	22	19	14	12	21	175	213	94	47	52	25
28	25	22	19	14	12	22	172	194	92	57	50	25
29	24	23	18	14	---	23	194	187	158	57	47	25
30	25	23	18	14	---	28	196	176	146	56	44	25
31	26	---	18	14	---	26	---	158	---	59	43	---
TOTAL	917	699	634	488	354	716	2690	7135	4324	2073	1438	984
MEAN	29.6	23.3	20.5	15.7	12.6	23.1	89.7	230	144	66.9	46.4	32.8
MAX	43	30	23	18	14	29	196	276	243	106	89	43
MIN	24	21	18	14	12	12	27	158	92	45	30	25
AC-FT	1820	1390	1260	968	702	1420	5340	14150	8580	4110	2850	1950

CAL YR 1986 TOTAL 14526 MEAN 39.8 MAX 147 MIN 14 AC-FT 28810
WTR YR 1987 TOTAL 22452 MEAN 61.5 MAX 276 MIN 12 AC-FT 44530

06710500 BEAR CREEK AT MORRISON, CO

LOCATION.--Lat 39°39'11", long 105°11'43", in SE¼SW¼ sec.35, T.4 S., R.70 W., Jefferson County, Hydrologic Unit 10190002, on left bank at Morrison, 180 ft upstream from bridge on State Highway 8 and 0.2 mi upstream from Mount Vernon Creek.

DRAINAGE AREA.--164 mi².

PERIOD OF RECORD.--Streamflow records, September 1887 to September 1891, May 1895 to December 1901, February 1902 (gage heights only), October 1919 to current year. No winter records for water years 1888-90, 1896, 1898, 1900. Monthly discharge only for some periods, published in WSP 1310. Published as "near Morrison" 1900-1902, as "at Starbuck" 1919-28, and as "at Idledale" 1929-34. Water-quality data available, October 1976 to September 1981.

REVISED RECORDS.--WSP 976: 1942. WSP 1310: 1888, 1890-91, 1898, 1935(M). WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,780.43 ft above National Geodetic Vertical Datum of 1929. See WSP 1710 or 1730 for history of changes prior to Oct. 1, 1934. Oct. 1, 1934, to Oct. 10, 1961, water-stage recorder at site 80 ft downstream at present datum.

REMARKS.--Estimated daily discharges: Nov. 11-15, Dec. 3-5, Dec. 9 to Jan. 2, Jan. 4, 9-11, 15-22, Feb. 5-7, 20-28, and Mar. 1, 2. Records good except for estimated daily discharges, which are fair. Small diversions for irrigation of about 1,000 acres upstream from station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--72 years (water years 1891, 1897, 1899, 1901, 1920-87), 54.1 ft³/s; 39,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,600 ft³/s, estimated, July 24, 1896; minimum daily, 0.8 ft³/s, Nov. 26, 1939, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
June 10	0030	*435	*5.68	No other peak greater than base discharge.			

Minimum daily, 15 ft³/s, Jan. 16, 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	32	26	17	22	24	52	317	213	117	68	48
2	26	29	24	17	24	19	53	315	201	102	53	48
3	29	33	24	17	23	20	53	315	180	97	51	47
4	33	32	23	19	23	23	61	293	173	90	49	49
5	31	28	24	20	20	30	60	296	169	92	45	48
6	27	32	27	21	22	44	56	364	170	89	42	46
7	27	36	27	22	24	55	60	380	167	85	44	44
8	26	23	24	22	27	52	63	370	171	81	46	48
9	35	25	23	18	29	31	68	358	253	78	44	46
10	32	24	18	20	27	35	66	352	224	75	55	43
11	37	24	19	20	25	34	71	350	190	76	47	41
12	30	27	20	20	25	34	79	336	194	88	45	43
13	27	23	20	20	25	37	66	341	184	86	48	40
14	34	26	21	20	25	43	69	334	179	73	48	38
15	28	29	21	17	24	39	97	336	164	68	45	38
16	29	30	21	15	22	38	123	364	160	64	40	37
17	28	30	21	15	22	34	148	349	151	62	37	41
18	29	29	19	16	22	35	188	318	146	75	35	40
19	28	29	20	18	21	42	220	301	140	66	35	37
20	51	26	21	17	21	44	257	292	130	60	33	35
21	36	26	20	18	21	34	213	366	124	57	34	34
22	32	28	20	19	21	42	194	350	116	52	57	32
23	42	23	20	23	21	39	206	341	114	51	72	30
24	35	23	20	20	21	38	232	388	110	48	117	31
25	33	25	19	21	21	35	256	364	102	48	77	30
26	30	25	18	23	18	37	274	328	98	46	63	30
27	29	22	18	23	18	36	262	305	92	47	60	28
28	30	26	18	26	18	35	247	280	90	50	57	27
29	28	24	18	26	---	33	278	261	160	59	55	27
30	27	28	18	23	---	35	272	248	175	55	53	27
31	30	---	18	21	---	44	---	220	---	60	50	---
TOTAL	966	817	650	614	632	1121	4344	10132	4740	2197	1605	1153
MEAN	31.2	27.2	21.0	19.8	22.6	36.2	145	327	158	70.9	51.8	38.4
MAX	51	36	27	26	29	55	278	388	253	117	117	49
MIN	26	22	18	15	18	19	52	220	90	46	33	27
AC-FT	1920	1620	1290	1220	1250	2220	8620	20100	9400	4360	3180	2290

CAL YR 1986 TOTAL 16279 MEAN 44.6 MAX 182 MIN 13 AC-FT 32290
WTR YR 1987 TOTAL 28971 MEAN 79.4 MAX 388 MIN 15 AC-FT 57460

06710605 BEAR CREEK ABOVE BEAR CREEK LAKE NEAR MORRISON, CO

LOCATION.--Lat 39°39'08", long 105°10'23", in NE¼NE¼ sec.1, T.5 S., R.70 W., Jefferson County, Hydrologic Unit 10190002, on left bank, 0.9 mi downstream from Strain Gulch, 1.0 mi east of Morrison, 1.1 mi downstream from Mt. Vernon Creek.

DRAINAGE AREA.--176 mi².

PERIOD OF RECORD.--May 1986 to current year.

GAGE.--Water-stage recorder. Elevation of gage 5,645 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: July 14-17, July 28 to Aug. 4, 1986; July 23-31, Aug. 2-4, 1987. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by diversions to Harriman Canal, and Ward Canal, 0.7 mi upstream from gage. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 603 ft³/s, May 17, 1987, gage height, 2.26 ft; minimum daily, 1.8 ft³/s, Aug. 4, 11, 1986.

EXTREMES FOR MAY-SEPT. 1986.--Maximum discharge, 470 ft³/s, June 10, gage height, 2.10 ft; minimum daily, 1.8 ft³/s, Aug. 4, 11.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 603 ft³/s at 1630 May 17, gage height, 2.26 ft; minimum daily, 2.2 ft³/s, Sept. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	58	54	79	2.6	23
2	---	---	---	---	---	---	---	61	70	75	2.3	25
3	---	---	---	---	---	---	---	63	77	49	2.0	21
4	---	---	---	---	---	---	---	67	77	33	1.8	20
5	---	---	---	---	---	---	---	67	140	36	2.2	20
6	---	---	---	---	---	---	---	63	122	43	2.0	18
7	---	---	---	---	---	---	---	63	126	70	2.1	20
8	---	---	---	---	---	---	---	63	116	37	2.8	20
9	---	---	---	---	---	---	---	37	178	46	2.9	19
10	---	---	---	---	---	---	---	6.4	270	79	2.5	14
11	---	---	---	---	---	---	---	7.4	172	70	1.8	14
12	---	---	---	---	---	---	---	7.1	157	59	3.3	14
13	---	---	---	---	---	---	---	5.8	161	59	6.4	14
14	---	---	---	---	---	---	---	5.8	161	53	6.2	14
15	---	---	---	---	---	---	---	10	134	46	6.8	10
16	---	---	---	---	---	---	---	82	111	39	7.1	4.1
17	---	---	---	---	---	---	---	69	113	34	7.4	4.3
18	---	---	---	---	---	---	---	42	137	30	7.4	4.7
19	---	---	---	---	---	---	---	55	143	27	7.1	4.3
20	---	---	---	---	---	---	---	83	181	21	8.2	4.3
21	---	---	---	---	---	---	---	90	159	20	11	5.0
22	---	---	---	---	---	---	---	61	125	37	12	5.0
23	---	---	---	---	---	---	---	37	116	88	53	4.8
24	---	---	---	---	---	---	---	24	103	45	37	4.7
25	---	---	---	---	---	---	---	13	90	20	23	4.7
26	---	---	---	---	---	---	---	11	84	9.3	46	4.7
27	---	---	---	---	---	---	---	13	83	6.1	29	4.9
28	---	---	---	---	---	---	---	31	83	4.1	20	4.7
29	---	---	---	---	---	---	---	79	81	3.7	20	4.5
30	---	---	---	---	---	---	---	51	79	3.2	16	5.3
31	---	---	---	---	---	---	---	37	---	2.9	22	---
TOTAL	---	---	---	---	---	---	---	1362.5	3703	1224.3	373.9	336.0
MEAN	---	---	---	---	---	---	---	44.0	123	39.5	12.1	11.2
MAX	---	---	---	---	---	---	---	90	270	88	53	25
MIN	---	---	---	---	---	---	---	5.8	54	2.9	1.8	4.1
AC-FT	---	---	---	---	---	---	---	2700	7340	2430	742	666

06710605 BEAR CREEK ABOVE BEAR CREEK LAKE NEAR MORRISON, CO--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	26	26	31	19	38	52	322	292	134	47	34
2	7.9	22	30	26	20	28	60	368	287	107	25	35
3	10	23	26	13	20	30	57	429	263	96	13	35
4	10	24	33	15	19	36	71	330	266	80	7.0	41
5	10	20	31	15	20	49	69	277	258	73	4.0	39
6	9.0	30	38	20	20	62	96	340	258	63	4.6	32
7	5.6	43	37	20	20	72	59	356	251	59	11	28
8	5.8	29	29	19	20	79	62	356	248	58	11	36
9	15	30	28	24	21	55	58	347	355	58	9.8	31
10	11	32	20	30	20	43	46	356	329	59	17	30
11	16	36	21	21	20	42	54	335	279	62	3.5	31
12	12	51	51	20	20	30	81	350	287	80	3.3	32
13	6.3	42	59	17	20	48	58	362	258	78	4.9	28
14	13	33	42	20	21	52	65	365	241	65	5.5	26
15	4.8	37	36	21	21	51	112	375	216	57	4.1	29
16	5.3	36	26	28	21	47	144	385	210	52	2.6	27
17	5.8	33	25	34	21	41	191	395	187	51	2.3	35
18	6.7	38	27	31	25	39	253	401	181	62	2.8	30
19	5.8	36	23	42	26	49	209	405	168	50	3.2	26
20	30	30	24	35	26	52	314	388	157	45	4.3	24
21	17	28	25	30	25	41	254	492	140	41	7.5	24
22	10	41	25	23	31	49	230	430	128	37	33	21
23	29	26	24	21	31	45	230	402	125	37	61	14
24	31	27	24	20	40	39	246	477	122	35	128	7.0
25	28	33	29	16	29	33	268	466	111	34	71	3.5
26	25	33	32	18	21	32	276	433	100	32	57	2.2
27	22	30	29	19	27	37	263	402	93	31	53	2.8
28	21	32	27	24	32	37	251	369	88	30	49	3.0
29	18	28	24	24	---	41	209	347	220	28	47	4.4
30	17	33	20	21	---	39	271	332	224	27	42	8.2
31	18	---	23	17	---	54	---	306	---	26	36	---
TOTAL	432.7	962	914	715	656	1390	4729	11698	6342	1747	770.4	719.1
MEAN	14.0	32.1	29.5	23.1	23.4	44.8	158	377	211	56.4	24.9	24.0
MAX	31	51	59	42	40	79	314	492	355	134	128	41
MIN	4.8	20	20	13	19	28	46	277	88	26	2.3	2.2
AC-FT	858	1910	1810	1420	1300	2760	9380	23200	12580	3470	1530	1430

WTR YR 1987 TOTAL 31075.2 MEAN 85.1 MAX 492 MIN 2.2 AC-FT 61640

06711040 TURKEY CREEK ABOVE BEAR LAKE NEAR MORRISON, CO

LOCATION.--Lat 39°38'27", long 105°09'34", in SE¼SW¼ Sec.6, T.5 S, R.69 W, Jefferson County, Hydrologic Unit 10190002, on right downstream side of bridge, 0.5 mi east of intersection of Highway 285 and Soda Creek Lake Road, 1.5 mi upstream from mouth and 1.9 mi east of Morrison.

DRAINAGE AREA.--50.6 mi².

PERIOD OF RECORD.--April 1986 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,635 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: May 29 to Aug. 3. Records fair except for estimated daily discharges which are poor. Natural flow of stream affected by Harriman Canal. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 149 ft³/s, May 5, 1987, gage height, 3.40 ft; minimum daily, 0.41 ft³/s, Aug. 20, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 149 ft³/s, at 2300 May 5, gage height, 3.40 ft; minimum daily, 0.86 ft³/s, Sept. 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.89	1.3	1.4	1.3	2.7	4.1	25	71	46	26	23	1.2
2	.89	1.3	2.2	1.3	2.8	3.7	31	73	41	26	23	1.1
3	.95	1.5	2.9	1.3	2.9	4.3	30	95	37	26	23	1.0
4	1.5	1.6	3.0	1.3	3.1	5.3	35	95	37	26	22	1.1
5	1.4	1.2	2.8	1.3	3.1	7.2	32	106	36	26	22	1.1
6	1.4	1.5	2.8	1.3	3.0	9.6	31	123	36	26	21	1.1
7	1.3	1.6	2.8	1.4	3.4	20	33	114	35	26	21	1.1
8	1.1	1.1	2.9	1.5	4.2	25	34	105	35	25	22	1.3
9	1.2	1.1	2.7	1.8	4.6	18	36	92	68	25	21	1.1
10	1.1	1.1	2.7	2.0	4.8	18	34	86	34	25	22	1.1
11	2.4	1.4	2.7	1.7	4.6	14	34	83	34	25	21	1.1
12	2.4	2.0	2.6	1.7	5.2	13	39	86	33	25	21	1.1
13	2.4	1.8	2.6	1.7	5.8	17	33	75	33	25	21	1.1
14	1.8	1.5	2.5	1.7	6.2	20	39	67	32	25	22	1.2
15	1.3	1.6	2.4	1.7	5.3	19	58	61	32	25	21	1.2
16	1.2	1.7	2.3	1.7	4.6	17	68	61	32	25	20	1.1
17	1.1	2.2	2.3	1.7	4.2	14	83	61	31	25	10	1.1
18	1.0	3.5	2.3	1.7	3.6	14	99	61	31	25	1.2	1.1
19	1.0	3.9	2.0	1.7	3.3	19	106	60	30	24	1.1	1.1
20	2.0	3.9	1.9	1.7	3.1	20	109	62	30	24	1.0	1.1
21	1.4	4.3	1.9	1.7	3.9	16	101	90	29	24	1.1	1.1
22	.95	4.1	1.9	1.7	4.5	17	94	83	29	24	9.2	1.0
23	.94	2.4	1.9	1.8	4.3	15	90	75	29	24	11	1.0
24	1.1	2.1	1.7	1.8	3.8	14	93	87	28	24	14	.92
25	1.1	2.6	1.7	1.8	3.6	14	94	85	28	24	8.2	.86
26	1.0	2.6	1.7	1.8	3.5	15	94	84	28	24	12	.89
27	1.0	2.0	1.5	1.9	3.7	12	89	79	27	24	5.9	.89
28	1.0	2.9	1.4	2.2	4.1	11	83	68	27	24	1.8	.89
29	.92	2.7	1.3	3.1	---	13	79	61	86	23	1.4	.89
30	.89	2.3	1.3	3.3	---	15	76	56	26	23	1.3	.89
31	1.1	---	1.3	2.8	---	18	---	52	---	23	1.3	---
TOTAL	39.73	64.8	67.4	55.4	111.9	442.2	1882	2457	1060	766	426.5	31.73
MEAN	1.28	2.16	2.17	1.79	4.00	14.3	62.7	79.3	35.3	24.7	13.8	1.06
MAX	2.4	4.3	3.0	3.3	6.2	25	109	123	86	26	23	1.3
MIN	.89	1.1	1.3	1.3	2.7	3.7	25	52	26	23	1.0	.86
AC-FT	79	129	134	110	222	877	3730	4870	2100	1520	846	63

WTR YR 1987 TOTAL 7404.64 MEAN 20.3 MAX 123 MIN .86 AC-FT 14690

06711500 BEAR CREEK AT MOUTH, AT SHERIDAN, CO

LOCATION.--Lat 39°39'08", long 105°01'57", in NW¼NW¼ sec.5, T.5 S., R.68 W., Arapahoe County, Hydrologic Unit 10190002, on left bank just downstream from bridge on road to Fort Logan Mental Health Center, at Highway Department maintenance building at northwest city limits of Sheridan, 1.3 mi upstream from mouth, and 2.1 mi west of city hall in Englewood.

DRAINAGE AREA.--260 mi^2.

PERIOD OF RECORD.--April to November 1914, March 1927 to current year. Monthly discharge only prior to October 1933, published in WSP 1310. Published as "at Sheridan Junction" 1934-41.

REVISED RECORDS.--WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,295 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1710 or 1730 for history of changes prior to Oct. 9, 1953. Oct. 9, 1953, to Aug. 6, 1969, water-stage recorder at present site at datum 1.0 ft, higher.

REMARKS.--Estimated daily discharges, Water year 1986: Dec. 12-15, and July 6-8. Water year 1987: Jan. 6-23. Records good except for estimated daily discharges, which are fair. Flow regulated by Bear Creek Lake since July 1979. Storage and diversions upstream from station for irrigation of about 12,000 acres. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--59 years, 42.8 ft^3/s; 31,010 acre-ft/yr; 60 years, 43.8 ft^3/s; 31,730 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,150 ft^3/s, May 7, 1969, gage height, 10.5 ft, present datum, from flood marks, from rating curve extended above 3,400 ft^3/s; no flow, July 13, 1954.

EXTREMES FOR WATER YEAR 1986.--Maximum discharge, 558 ft^3/s at 1830 July, 20, gage height, 4.47 ft; minimum daily, 10 ft^3/s, Aug.14.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 712 ft^3/s at 2300 June 29, gage height, 4.72 ft; minimum daily, 12 ft^3/s, Sept. 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	40	23	29	34	34	28	79	72	85	24	27
2	37	32	27	31	34	35	31	80	89	80	34	32
3	41	27	28	28	34	36	56	82	94	71	38	38
4	42	29	35	27	32	34	62	82	98	43	44	31
5	41	27	36	25	31	32	77	75	123	40	42	27
6	40	27	36	29	32	32	105	77	136	45	40	29
7	38	25	36	32	30	28	109	82	138	83	37	31
8	38	23	35	29	27	29	107	71	127	82	37	32
9	41	37	35	31	26	31	123	68	164	65	36	30
10	42	32	34	32	28	29	123	62	292	17	28	28
11	47	28	32	32	29	24	138	56	209	54	18	25
12	45	38	32	32	29	25	132	54	172	65	14	22
13	49	43	32	31	30	28	130	51	162	62	11	20
14	50	37	32	30	30	25	130	45	164	53	10	20
15	49	41	32	31	32	25	117	44	162	31	11	20
16	47	39	32	32	39	27	115	90	165	24	11	18
17	42	39	34	32	40	29	113	117	155	24	11	14
18	42	39	34	32	39	28	107	83	155	28	13	14
19	40	40	36	34	41	25	99	74	145	32	13	14
20	40	31	38	34	47	23	98	92	167	78	11	14
21	37	27	39	32	40	22	92	99	159	40	13	14
22	34	29	36	30	36	24	89	96	138	32	28	16
23	31	29	35	32	37	27	90	68	123	69	43	15
24	27	29	34	36	38	28	96	58	113	66	42	15
25	27	41	32	32	41	27	92	45	111	41	32	15
26	27	47	32	29	43	27	94	40	105	29	31	14
27	27	42	32	30	44	27	92	38	101	21	37	13
28	27	38	31	32	40	22	85	48	94	17	30	15
29	27	32	32	34	---	19	82	94	90	15	25	16
30	27	30	32	34	---	21	80	96	83	14	25	15
31	42	---	32	34	---	24	---	74	---	13	23	---
TOTAL	1176	1018	1026	968	983	847	2892	2220	4106	1419	812	634
MEAN	37.9	33.9	33.1	31.2	35.1	27.3	96.4	71.6	137	45.8	26.2	21.1
MAX	50	47	39	36	47	36	138	117	292	85	44	38
MIN	27	23	23	25	26	19	28	38	72	13	10	13
AC-FT	2330	2020	2040	1920	1950	1680	5740	4400	8140	2810	1610	1260

CAL YR 1985 TOTAL 23470 MEAN 64.3 MAX 435 MIN 11 AC-FT 46550
WTR YR 1986 TOTAL 18101 MEAN 49.6 MAX 292 MIN 10 AC-FT 35900

06711500 BEAR CREEK AT MOUTH, AT SHERIDAN, CO--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	54	49	28	34	34	88	368	267	202	37	54
2	18	38	47	27	35	36	99	390	253	156	49	53
3	26	39	44	27	36	38	95	459	239	139	29	52
4	24	39	41	27	36	42	108	444	230	125	34	56
5	22	37	43	28	34	48	110	416	219	114	37	59
6	19	37	49	29	32	54	102	516	215	104	35	52
7	15	47	51	30	32	55	172	518	212	96	42	46
8	16	42	46	32	35	61	133	501	225	94	43	46
9	24	34	43	32	35	58	36	472	328	92	41	46
10	22	32	38	31	36	58	86	457	313	65	42	44
11	34	32	31	30	36	63	104	447	245	21	40	43
12	28	43	36	31	36	56	139	455	230	34	36	43
13	20	42	43	32	37	57	118	428	220	23	35	43
14	20	40	42	32	42	69	107	399	206	70	37	42
15	17	45	40	32	41	70	146	378	194	223	36	44
16	16	45	38	32	40	75	185	384	185	236	34	41
17	14	44	38	32	38	65	228	379	168	92	32	44
18	14	45	36	29	36	59	293	305	164	77	21	44
19	15	45	33	29	40	65	344	363	162	74	16	41
20	24	44	33	29	39	72	398	347	155	65	14	38
21	30	42	33	28	33	62	352	459	145	58	18	36
22	25	43	33	30	31	70	335	477	128	53	71	33
23	28	43	32	33	35	65	313	426	134	53	74	26
24	37	40	31	34	39	64	326	451	131	52	168	19
25	39	42	30	34	38	61	352	495	120	34	137	15
26	38	41	30	34	37	61	364	439	114	28	119	14
27	36	39	28	35	37	73	360	408	106	27	102	12
28	34	40	28	37	35	60	349	373	105	24	80	14
29	32	41	28	37	---	60	346	337	300	22	70	15
30	32	45	28	35	---	58	343	326	393	20	65	14
31	44	---	28	34	---	73	---	296	---	20	58	---
TOTAL	779	1240	1150	970	1015	1842	6531	12903	6106	2493	1653	1129
MEAN	25.1	41.3	37.1	31.3	36.2	59.4	218	419	204	80.4	53.3	37.6
MAX	44	54	51	37	42	75	398	518	393	236	168	59
MIN	14	32	28	27	31	34	36	296	105	20	14	12
AC-FT	1550	2460	2280	1920	2010	3650	12950	25770	12110	4940	3280	2240

CAL YR 1986 TOTAL 18050 MEAN 49.5 MAX 292 MIN 10 AC-FT 35800
WTR YR 1987 TOTAL 37901 MEAN 104 MAX 518 MIN 12 AC-FT 75180

06711565 SOUTH PLATTE RIVER AT ENGLEWOOD, CO

LOCATION.--Lat 39°39'34", long 105°00'13", in NW¼NE¼ sec.33, T.5 S., R.68 W., Arapahoe County, Hydrologic Unit 10190002, on right bank, 0.3 mi downstream from Dartmouth Ave bridge at Englewood, 1.5 mi downstream from Bear Creek.

DRAINAGE AREA.--3,307 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,250 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 21, 22. Records good . Natural flow of stream affected by transmountain diversions, storage and flood control reservoirs, power developments, diversions for irrigation and municipal use, and return flow from irrigated areas. Flow regulated by Chatfield Dam since May 29, 1975 (station 06708800), and Bear Creek Dam since July 1979.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,090 ft³/s, Aug. 20, 1984, gage height, 5.25 ft; minimum daily, 28 ft³/s, Feb. 11, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,980 ft³/s at 2000 May 23, gage height, 5.02 ft; minimum daily, 43 ft³/s, Jan. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	209	103	64	60	74	183	1270	1630	856	172	175
2	63	97	86	57	63	81	287	825	1160	865	236	165
3	91	103	73	55	64	101	339	1250	1250	836	290	163
4	91	216	69	43	61	112	340	1560	1190	741	360	177
5	58	297	72	44	63	127	302	1870	1090	732	467	206
6	63	305	77	135	54	136	267	2160	1080	662	512	182
7	55	354	80	260	58	157	224	2580	1070	566	473	165
8	57	328	72	161	57	232	179	3020	1120	526	303	168
9	102	328	64	146	58	181	88	3060	1980	469	296	170
10	103	347	69	81	59	183	155	3130	2490	409	297	159
11	173	370	54	63	64	188	222	3060	2110	322	380	166
12	86	379	58	64	64	177	352	2920	1790	408	489	158
13	58	370	75	63	58	177	287	2640	1650	407	498	157
14	71	349	66	53	82	193	249	2520	1410	434	461	164
15	63	328	66	66	110	190	278	2480	1340	628	352	222
16	68	328	65	66	77	216	331	2470	1180	682	258	153
17	68	301	64	75	64	190	395	2530	981	514	188	128
18	50	87	76	76	70	176	520	2540	874	431	178	108
19	57	80	67	64	98	184	557	2680	959	370	173	91
20	91	73	59	100	90	202	699	2810	1040	272	165	82
21	90	73	60	94	73	235	781	3210	965	228	167	75
22	80	76	62	103	65	273	814	3140	838	157	473	78
23	72	72	58	117	66	247	853	3270	761	146	275	83
24	90	64	58	66	68	241	954	3200	680	117	431	66
25	75	71	60	68	68	214	1110	3190	896	98	427	49
26	75	63	70	66	70	172	1130	3610	891	82	489	47
27	71	62	60	68	80	212	1330	3730	739	85	242	51
28	68	65	52	70	86	161	1620	3200	662	79	159	59
29	67	62	59	66	---	143	1330	2140	1100	97	141	68
30	64	85	53	64	---	148	1320	1900	1140	93	198	55
31	120	---	56	61	---	159	---	1880	---	107	181	---
TOTAL	2403	5942	2063	2579	1950	5482	17536	79845	36066	12419	9731	3790
MEAN	77.5	198	66.5	83.2	69.6	177	585	2576	1202	401	314	126
MAX	173	379	103	260	110	273	1620	3730	2490	865	512	222
MIN	50	62	52	43	54	74	88	825	662	79	141	47
AC-FT	4770	11790	4090	5120	3870	10870	34780	158400	71540	24630	19300	7520

CAL YR 1986 TOTAL 82241 MEAN 225 MAX 820 MIN 50 AC-FT 163100
WTR YR 1987 TOTAL 179806 MEAN 493 MAX 3730 MIN 43 AC-FT 356600

06711565 SOUTH PLATTE RIVER AT ENGLEWOOD, CO--Continued

PERIOD OF RECORD.--March 1985 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1985 to current year.
pH: March 1985 to current year.
WATER TEMPERATURES: March 1985 to current year.
DISSOLVED OXYGEN: March 1985 to current year.

INSTRUMENTATION.--Water-quality monitor since March 1985. Values recorded hourly.

REMARKS.--Daily maximum and minimum Specific Conductance data available in District office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum mean, 866 microsiemens, Dec. 12, 1986; minimum mean, 223 microsiemens, May 16, 1987.
pH: Maximum, 9.9 units, July 14, 15, 18, 1987; minimum, 6.8 units, Sept. 27, 1985.
WATER TEMPERATURES: Maximum, 29.0°C, Aug. 17, 1986, July 30, 1987; minimum, 0.0°C, freezing point on many days during winter months.
DISSOLVED OXYGEN: Maximum, 17.4 mg/L, Mar. 14, 1985; minimum, 3.4 mg/L, July 31, 1987.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum mean, 866 microsiemens, Dec. 12, 1986; minimum, 223 microsiemens, May 16, 1987.
pH: Maximum, 9.9 units July 14, 15, 18, 1987, minimum, 7.2 units May 1-4, June 11, 1987.
WATER TEMPERATURES: Maximum, 29.0°C, July 30, 1987; minimum, 0.0°C, on many days during winter months.
DISSOLVED OXYGEN: Maximum, 15.4 mg/L, Feb. 11-13, 1987; minimum, 3.4 mg/L, July 31, 1987.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	480	852	704	739	799	526	347	270	336	471	518
2	---	617	792	731	739	757	606	363	268	337	428	523
3	---	---	743	708	727	695	526	384	258	437	438	544
4	---	---	765	717	726	671	497	411	265	498	441	544
5	---	---	786	718	749	622	488	406	270	544	459	534
6	---	---	749	637	724	584	492	379	273	572	485	585
7	---	---	820	513	729	549	512	325	276	567	469	644
8	---	548	799	586	712	518	509	261	280	552	485	678
9	---	535	776	586	711	521	612	264	311	534	469	683
10	---	498	773	669	713	538	543	260	318	500	483	658
11	---	496	---	724	735	541	472	254	296	476	455	623
12	---	485	866	681	733	546	425	249	279	438	430	600
13	---	477	782	674	717	555	422	242	268	411	430	586
14	---	531	757	659	688	534	438	235	276	380	439	588
15	---	556	746	632	718	516	449	227	283	382	450	558
16	---	566	743	639	720	529	437	223	292	422	469	542
17	---	561	727	688	745	524	435	236	301	445	485	597
18	---	603	723	731	758	528	450	287	318	447	491	660
19	---	656	759	720	---	541	447	292	349	461	498	676
20	---	667	748	700	---	535	402	292	363	481	502	683
21	---	678	741	830	830	505	412	318	371	500	508	688
22	---	684	742	647	804	521	422	365	376	536	481	689
23	---	661	746	693	776	508	450	337	377	523	525	719
24	---	714	755	796	748	502	465	327	377	525	576	728
25	---	696	747	803	746	505	439	320	382	572	597	775
26	---	713	756	762	745	512	369	275	373	579	559	797
27	---	727	753	758	---	516	368	236	347	572	499	803
28	---	749	741	749	---	665	358	264	346	591	527	797
29	---	733	740	750	---	564	343	273	347	604	543	786
30	---	748	757	736	---	542	333	273	351	592	528	800
31	---	---	725	737	---	553	---	272	---	567	513	---
MEAN	---	---	---	697	---	564	455	297	315	495	488	654

06711565 SOUTH PLATTE RIVER AT ENGLEWOOD, CO--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	8.1	7.6	8.2	7.7	7.7	7.7	8.5	8.5
2	---	---	---	---	8.2	7.6	8.4	7.9	7.7	7.7	9.0	7.9
3	---	---	---	---	8.0	7.6	8.4	7.9	7.8	7.7	9.1	7.8
4	---	---	---	---	8.1	7.5	8.5	8.0	7.8	7.8	9.1	7.8
5	---	---	---	---	8.3	7.5	8.4	8.0	7.8	7.8	9.3	7.8
6	---	---	---	---	7.9	7.5	8.4	8.0	7.9	7.8	9.2	7.8
7	---	---	---	---	8.2	7.7	8.2	8.1	7.8	7.8	9.3	7.8
8	---	---	7.8	7.7	8.1	7.6	8.4	8.1	7.8	7.8	8.2	7.8
9	---	---	7.7	7.6	8.1	7.6	8.4	8.2	7.8	7.8	8.7	7.8
10	---	---	8.0	7.7	7.9	7.5	8.2	8.1	7.8	7.8	9.1	7.9
11	---	---	8.0	7.9	7.9	7.7	8.1	8.0	7.8	7.7	8.9	8.0
12	---	---	8.0	8.0	7.9	7.5	8.0	7.9	7.8	7.7	9.2	7.9
13	---	---	8.0	7.9	7.9	7.6	8.0	7.8	7.8	7.7	9.1	8.0
14	---	---	8.0	7.8	8.0	7.7	7.9	7.8	7.7	7.7	9.2	8.0
15	---	---	8.0	7.8	8.1	7.6	7.9	7.8	7.7	7.7	9.1	7.9
16	---	---	8.0	7.9	7.8	7.7	7.9	7.8	7.7	7.7	8.7	7.9
17	---	---	8.1	8.0	7.9	7.7	7.9	7.8	7.8	7.7	9.0	8.0
18	---	---	8.1	8.0	7.9	7.7	7.8	7.8	7.8	7.8	8.9	7.9
19	---	---	8.2	8.1	7.8	7.7	7.8	7.8	7.8	7.7	8.9	8.0
20	---	---	8.3	8.1	8.0	7.7	7.8	7.8	7.8	7.7	8.7	7.8
21	---	---	8.5	8.0	8.2	7.9	7.8	7.8	7.7	7.7	8.8	7.8
22	---	---	8.6	8.0	8.1	7.8	7.8	7.7	7.7	7.7	8.7	7.8
23	---	---	8.4	7.9	8.0	7.9	7.7	7.7	7.7	7.7	8.7	7.9
24	---	---	8.5	7.8	8.1	7.5	7.7	7.7	8.5	7.7	8.7	7.8
25	---	---	8.3	7.9	8.0	7.3	7.7	7.7	8.5	8.5	8.7	7.8
26	---	---	8.4	7.8	7.9	7.3	7.8	7.7	8.5	8.5	8.5	7.7
27	---	---	8.3	7.7	8.0	7.5	7.8	7.7	8.5	8.5	8.5	7.7
28	---	---	8.6	7.8	8.1	7.6	7.7	7.7	8.5	8.5	8.4	7.5
29	---	---	8.3	7.8	8.1	7.7	7.7	7.7	---	---	8.5	7.6
30	---	---	8.0	7.7	8.1	7.6	7.7	7.7	---	---	8.5	7.6
31	---	---	---	---	8.2	7.7	7.7	7.7	---	---	8.3	7.5
MONTH	---	---	---	---	8.3	7.3	8.5	7.7	8.5	7.7	9.3	7.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.0	8.0	7.4	7.2	7.8	7.8	8.3	7.9	8.6	7.6	8.1	7.8
2	8.9	8.1	7.3	7.2	7.9	7.8	8.5	8.0	8.5	7.6	8.4	7.8
3	9.0	8.0	7.2	7.2	8.2	7.9	8.5	8.1	8.2	7.7	8.7	7.9
4	8.9	8.0	7.4	7.2	8.1	7.9	8.5	8.1	8.2	7.7	8.8	8.0
5	9.0	8.1	7.4	7.4	7.9	7.7	8.7	8.2	8.2	7.7	8.8	8.0
6	9.0	8.0	7.6	7.4	7.7	7.5	8.7	8.2	8.3	7.8	8.4	7.7
7	8.9	8.0	8.0	7.5	7.5	7.4	8.8	8.3	8.4	7.7	7.7	7.4
8	8.9	8.0	8.0	7.9	7.5	7.3	8.8	8.3	8.5	7.6	7.6	7.5
9	9.0	8.1	7.9	7.7	7.4	7.3	8.8	8.2	8.4	7.6	7.6	7.5
10	8.9	8.0	8.1	7.7	7.4	7.3	8.9	8.3	8.5	7.6	7.6	7.5
11	8.9	8.0	8.1	7.9	8.2	7.2	8.9	8.3	8.3	7.6	7.7	7.6
12	9.0	8.0	8.4	8.1	8.2	7.9	8.4	8.2	8.0	7.7	8.4	7.7
13	9.0	8.1	8.3	8.2	8.2	7.8	9.7	8.3	8.1	7.7	8.0	7.9
14	9.0	8.1	8.3	8.2	8.3	7.9	9.9	8.3	8.4	7.6	8.1	8.0
15	8.9	8.1	8.3	8.2	8.4	7.8	9.9	9.3	8.5	7.6	8.1	8.0
16	8.9	7.8	8.3	8.2	8.6	7.9	9.8	9.2	8.5	7.6	8.1	7.8
17	8.9	7.9	8.3	8.3	8.5	7.9	9.7	9.1	8.2	7.5	7.8	7.7
18	8.9	7.9	8.3	8.3	8.7	7.9	9.9	9.1	8.2	7.4	7.7	7.6
19	8.5	7.7	8.3	8.1	8.7	8.0	9.8	9.0	7.9	7.4	7.6	7.6
20	8.1	7.6	8.2	8.1	8.6	8.0	9.5	8.9	7.9	7.5	7.8	7.6
21	8.2	7.8	8.1	8.0	8.7	8.0	9.3	8.8	7.6	7.4	7.8	7.7
22	8.3	7.9	8.0	7.9	8.6	7.9	8.9	8.7	7.7	7.6	7.7	7.7
23	8.4	7.9	7.9	7.8	8.5	7.8	8.7	8.5	7.7	7.5	7.8	7.7
24	8.3	7.9	7.8	7.7	8.7	7.8	8.6	8.4	7.9	7.6	8.0	7.7
25	8.2	7.9	7.7	7.6	8.7	7.9	8.4	7.9	8.1	7.7	8.2	7.8
26	8.1	7.9	7.7	7.6	8.8	8.0	8.1	8.0	8.3	7.8	8.1	7.8
27	8.0	7.9	8.0	7.7	8.3	8.2	8.1	7.8	8.5	8.0	8.1	7.9
28	8.0	7.9	8.0	7.8	8.1	7.6	8.0	7.9	8.3	7.9	8.3	8.0
29	7.9	7.4	7.9	7.7	8.0	7.7	7.9	7.7	8.0	7.9	8.2	7.9
30	7.5	7.4	7.8	7.7	8.9	7.9	8.5	7.7	8.1	7.8	8.2	8.1
31	---	---	7.8	7.7	---	---	8.5	7.6	8.1	7.9	---	---
MONTH	9.0	7.4	8.3	7.2	8.9	7.2	9.9	7.6	8.6	7.4	8.8	7.4

06711565 SOUTH PLATTE RIVER AT ENGLEWOOD, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	7.5	4.5	6.0	2.0	.5	.0	8.5	1.5	9.0	1.5
2	---	---	11.5	6.5	6.0	1.0	2.0	.0	9.5	3.0	11.5	2.0
3	---	---	---	---	4.5	.5	3.0	.0	7.5	2.0	12.5	3.5
4	---	---	---	---	5.5	1.0	5.0	.0	7.5	2.9	12.5	4.0
5	---	---	---	---	6.0	1.5	7.0	1.5	8.5	1.0	13.5	5.0
6	---	---	---	---	3.5	2.5	3.5	2.0	9.5	1.0	13.0	5.5
7	---	---	---	---	5.0	2.5	3.0	1.5	11.0	1.5	13.0	5.5
8	---	---	8.5	4.0	4.5	.5	3.0	.5	10.0	2.5	7.5	4.5
9	---	---	9.0	6.0	3.5	.5	4.5	.5	10.0	2.0	5.0	3.5
10	---	---	7.0	3.0	1.5	.5	3.5	.0	7.5	2.5	12.0	4.0
11	---	---	8.0	4.5	4.0	1.0	6.0	.0	10.5	3.5	9.0	4.5
12	---	---	8.0	4.0	4.5	.5	7.0	.0	11.0	4.0	---	---
13	---	---	7.5	3.0	4.5	.5	7.0	.0	10.5	3.0	12.5	8.5
14	---	---	9.5	4.5	6.5	.5	4.5	1.0	6.5	3.0	---	---
15	---	---	10.0	4.0	6.0	.5	2.5	.5	8.0	2.5	---	---
16	---	---	10.0	4.5	6.5	1.0	1.0	.5	5.0	3.5	7.0	5.0
17	---	---	9.5	4.5	4.5	.5	1.0	.0	8.5	3.0	7.5	5.0
18	---	---	8.5	4.5	2.5	.5	1.0	.0	4.5	2.0	13.0	5.0
19	---	---	9.0	5.0	5.5	.5	1.0	.0	4.0	2.0	13.0	4.5
20	---	---	9.5	3.5	5.0	.5	1.0	.0	6.0	1.5	9.0	4.5
21	---	---	10.0	4.5	5.5	1.0	1.0	.0	7.5	.5	11.5	3.0
22	---	---	7.0	5.5	5.5	.5	.5	.0	9.0	.0	6.0	4.0
23	---	---	8.5	4.0	4.0	.5	1.5	.0	8.5	.5	---	---
24	---	---	9.5	3.5	4.5	1.0	1.5	.0	3.5	1.0	---	---
25	---	---	5.5	4.0	4.5	.5	2.5	.0	6.0	1.5	---	---
26	---	---	8.0	4.0	4.0	.5	---	---	3.5	1.0	---	---
27	---	---	8.5	2.5	3.5	.5	---	---	6.5	1.0	---	---
28	---	---	9.0	4.5	5.5	.5	8.0	1.5	8.0	1.0	---	---
29	---	---	7.9	5.0	5.0	.5	6.5	.5	---	---	---	---
30	---	---	5.0	1.0	6.0	1.0	6.5	1.0	---	---	---	---
31	---	---	---	---	4.5	.0	7.0	2.5	---	---	---	---
MONTH	---	---	---	---	6.5	.0	8.0	.0	11.0	.0	---	---

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	14.5	11.5	16.5	12.0	---	---	28.0	19.0	---	---
2	11.0	1.5	14.5	10.5	17.0	12.5	20.5	15.0	27.0	19.0	---	---
3	12.0	3.0	11.0	9.5	16.0	12.0	22.0	15.5	23.0	20.0	21.5	15.0
4	9.0	3.5	12.0	9.5	17.0	13.0	21.5	17.0	25.5	19.0	20.0	19.0
5	---	---	12.5	10.5	17.5	13.5	22.5	16.5	24.5	18.5	19.0	13.5
6	---	---	13.0	10.5	17.5	14.0	23.5	17.0	24.5	17.5	22.5	18.5
7	---	---	13.5	10.5	18.0	14.0	22.0	17.5	24.0	20.0	---	---
8	---	---	13.5	11.5	16.0	14.5	23.0	17.0	25.0	19.0	23.0	15.0
9	---	---	14.0	12.5	16.5	14.5	23.0	17.5	23.0	19.0	---	---
10	---	---	14.5	12.0	17.5	15.0	24.0	17.5	26.0	18.5	---	---
11	---	---	14.0	12.0	18.0	15.0	22.0	18.0	25.0	17.0	---	---
12	---	---	14.5	12.5	18.0	15.0	19.0	17.0	20.5	19.0	---	---
13	---	---	---	---	18.5	15.0	23.5	16.5	23.0	18.5	---	---
14	---	---	15.5	13.0	19.0	14.0	24.5	17.5	24.5	18.5	---	---
15	---	---	16.5	13.5	19.0	15.0	24.0	18.0	25.0	18.0	---	---
16	15.5	7.5	16.5	14.0	20.0	16.0	24.0	18.5	25.0	17.5	20.0	13.5
17	16.0	8.0	16.0	14.0	19.5	15.0	23.0	18.0	25.5	17.0	16.0	13.5
18	15.5	9.0	16.0	13.5	20.5	15.0	24.0	17.5	24.5	15.0	20.5	12.0
19	15.0	9.0	15.5	13.5	20.5	15.5	25.0	17.5	26.0	13.5	20.5	12.0
20	9.0	8.0	15.0	13.0	---	---	25.5	16.5	23.5	17.5	20.5	12.0
21	13.5	7.5	13.5	12.5	20.5	15.5	26.0	17.0	23.5	15.0	20.0	12.0
22	14.0	8.5	14.5	12.5	---	---	26.0	17.0	21.0	18.0	20.5	11.5
23	15.0	9.0	15.5	12.5	20.0	15.5	26.5	17.0	19.0	17.5	---	---
24	14.0	10.0	13.5	12.5	20.5	16.0	26.0	17.5	21.0	17.0	---	---
25	14.0	10.0	15.5	12.5	21.0	16.0	28.0	17.5	22.0	17.5	---	---
26	14.5	10.5	15.0	13.0	22.0	15.0	28.0	17.5	---	---	---	---
27	13.0	10.5	15.0	13.0	---	---	27.0	17.5	22.5	---	---	---
28	14.0	11.0	14.5	13.0	21.0	15.0	25.5	17.0	---	---	---	---
29	14.5	11.0	14.5	13.0	---	---	27.0	16.5	---	---	---	---
30	14.5	11.0	15.0	12.5	---	---	29.0	16.5	---	---	---	---
31	---	---	16.0	13.0	---	---	28.5	18.5	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

06711565 SOUTH PLATTE RIVER AT ENGLEWOOD, CO--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	10.0	7.2	14.8	10.1	12.4	7.9	11.4	7.9
2	---	---	---	---	10.1	7.2	14.1	10.3	12.9	8.0	12.5	8.2
3	---	---	---	---	10.6	7.6	14.7	10.3	13.0	8.2	13.8	8.1
4	---	---	---	---	10.8	7.1	15.3	9.7	13.7	8.3	13.5	7.9
5	---	---	---	---	10.8	6.7	15.0	9.8	13.7	8.4	12.5	7.8
6	---	---	---	---	9.9	7.2	14.8	9.9	14.2	8.2	12.1	7.9
7	---	---	---	---	10.6	7.4	12.9	12.0	14.2	7.6	11.6	8.0
8	---	---	10.9	9.8	11.2	7.6	13.6	11.0	14.5	8.0	10.0	8.8
9	---	---	11.0	9.6	11.6	8.3	12.2	10.7	14.9	7.7	10.9	9.7
10	---	---	11.4	10.0	12.5	8.6	12.1	10.4	14.6	7.9	11.2	8.8
11	---	---	10.7	9.6	12.7	7.9	12.0	9.6	15.4	7.5	11.2	9.2
12	---	---	10.8	9.9	11.8	7.7	12.1	9.4	15.4	7.5	11.4	8.6
13	---	---	10.8	9.5	12.0	8.4	11.7	9.2	15.4	7.3	11.3	8.6
14	---	---	10.3	8.5	11.9	8.5	12.3	9.7	14.7	7.5	11.2	8.7
15	---	---	10.2	8.6	12.4	8.6	12.6	10.2	12.3	7.9	11.2	8.9
16	---	---	10.3	8.3	12.4	8.8	13.0	9.9	11.4	7.2	10.8	9.1
17	---	---	10.1	8.5	12.9	9.5	13.1	10.2	13.3	7.3	11.6	9.6
18	---	---	10.0	7.1	13.5	9.4	13.0	9.6	11.8	7.7	11.6	8.9
19	---	---	9.6	7.2	13.5	9.6	12.5	9.8	12.2	8.7	11.5	8.5
20	---	---	9.6	6.5	13.9	9.7	13.2	9.5	11.9	8.0	11.6	8.9
21	---	---	10.8	6.4	14.3	10.1	13.7	9.3	12.4	7.5	11.3	8.9
22	---	---	10.1	6.8	14.1	10.0	12.4	9.8	12.9	7.4	10.8	9.3
23	---	---	10.3	6.9	14.7	9.6	11.6	9.3	12.7	7.3	11.1	9.1
24	---	---	10.6	6.3	13.7	9.0	11.6	8.8	12.6	7.4	11.2	9.4
25	---	---	10.0	6.8	13.8	9.4	11.5	8.7	10.8	6.5	11.4	9.1
26	---	---	11.0	6.7	14.1	9.6	11.1	8.5	10.4	6.6	11.4	8.6
27	---	---	10.8	6.5	14.5	9.4	11.4	8.1	11.3	7.1	10.9	9.0
28	---	---	11.0	6.0	14.1	9.6	11.2	8.0	10.9	7.4	11.6	9.8
29	---	---	10.4	5.9	14.2	9.6	11.9	8.7	---	---	11.7	9.7
30	---	---	10.6	6.5	13.9	9.8	11.8	8.4	---	---	11.6	8.8
31	---	---	---	---	14.3	10.3	12.1	8.4	---	---	11.3	8.3
MONTH	---	---	---	---	14.7	6.7	15.3	8.0	15.4	6.5	13.8	7.8

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.2	8.8	8.5	8.1	8.5	7.7	---	---	6.6	4.0	---	---
2	11.0	8.7	8.5	8.0	8.3	7.7	8.0	7.4	6.3	4.7	7.9	5.8
3	10.3	8.6	8.6	8.2	8.5	7.8	7.9	7.3	6.0	5.0	8.1	6.0
4	10.3	9.0	8.7	8.3	8.0	7.5	7.7	7.2	6.3	5.1	8.5	6.2
5	10.4	9.0	8.9	8.4	7.8	7.4	7.8	7.2	5.8	5.2	8.9	6.5
6	10.6	7.9	8.8	5.0	7.7	7.4	7.7	7.0	6.0	5.3	8.4	6.1
7	10.5	8.6	---	---	7.7	7.5	7.7	7.0	5.2	5.2	9.4	6.5
8	9.9	6.3	---	---	7.9	7.2	7.7	6.7	6.7	5.2	9.4	6.1
9	11.0	7.0	---	---	7.7	6.9	7.7	6.6	6.8	5.6	9.4	6.3
10	10.2	7.6	---	---	7.7	7.4	7.6	6.4	7.0	5.5	9.1	6.5
11	10.1	7.6	---	---	7.7	7.5	7.5	6.4	7.2	5.6	9.4	6.6
12	9.6	8.1	---	---	7.6	7.4	7.5	6.5	6.5	5.9	10.1	6.4
13	9.8	8.7	---	---	7.6	7.3	7.5	6.5	6.7	6.0	10.2	6.7
14	10.0	7.4	8.3	7.9	7.6	7.3	7.5	6.6	6.5	5.9	10.1	6.8
15	9.6	8.2	8.0	7.6	7.6	7.2	7.3	6.6	6.9	5.7	8.9	6.8
16	10.0	8.2	7.8	7.6	7.6	7.2	7.1	6.4	7.1	5.7	8.7	6.1
17	9.8	8.2	---	---	7.7	7.3	7.0	6.1	7.4	5.0	8.0	6.3
18	9.1	8.1	---	---	7.7	7.1	7.2	6.1	7.2	5.3	9.1	5.8
19	9.0	8.1	7.9	7.6	7.5	7.2	7.3	6.0	7.3	5.3	9.3	5.9
20	9.2	8.5	7.9	7.7	7.6	7.1	7.3	5.9	8.0	5.3	9.9	5.6
21	9.0	8.3	---	---	7.6	7.0	7.1	5.4	8.2	5.0	10.1	5.8
22	8.9	8.0	---	---	7.6	7.2	7.0	5.0	6.5	5.5	10.3	5.6
23	8.6	8.1	---	---	7.9	7.1	7.1	4.7	7.2	5.9	10.2	5.1
24	8.5	8.0	---	---	7.9	7.3	7.1	4.2	7.1	5.8	10.9	4.8
25	8.5	8.1	---	---	8.1	7.3	7.3	4.0	---	---	13.1	5.1
26	8.5	8.0	---	---	7.8	7.4	8.8	3.7	---	---	12.6	4.6
27	8.6	8.2	---	---	7.9	7.4	8.5	4.1	---	---	11.9	4.8
28	8.4	8.1	9.0	8.6	8.0	7.3	9.6	4.8	---	---	11.4	5.3
29	8.7	8.3	8.8	8.4	7.5	7.2	8.7	4.2	---	---	11.5	5.3
30	8.5	8.1	8.7	8.3	7.8	7.4	8.2	3.5	---	---	11.5	5.2
31	---	---	8.5	8.1	---	---	8.2	3.4	---	---	---	---
MONTH	11.2	6.3	---	---	8.5	6.9	9.6	3.4	---	---	---	---

06712000 CHERRY CREEK NEAR FRANKTOWN, CO

LOCATION.--Lat 39°21'21", long 104°45'46", in NE¼ sec.15, T.8 S., R.66 W., Douglas County, Hydrologic Unit 10190003, on right bank 1.5 mi upstream from Russellville Gulch and 2.5 mi south of Franktown.

DRAINAGE AREA.--169 mi^2.

PERIOD OF RECORD.--November 1939 to current year.

REVISED RECORDS.--WSP 1730: Drainage area: WDR CO-87-1: 1983-85 (P).

GAGE.--Water-stage recorder. Elevation of gage is 6,170 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1730 for history of changes prior to Oct. 1, 1953.

REMARKS.--Estimated daily discharges: Dec. 10-18, Jan. 10 to Feb. 7, and Aug. 6. Records good except for estimated daily discharges, which are poor. Many small diversions upstream from station for irrigation of about 800 acres. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--47 years (water years 1941-87), 9.86 ft^3/s; 7,140 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,170 ft^3/s, Aug. 5, 1945, gage height, 4.91 ft, site and datum then in use, by float measurement; minimum daily, 0.20 ft^3/s, July 13, 1946, Sept. 30, Oct. 1, 1950.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 3, 1933, caused by Castlewood Dam failure, exceeded all other observed floods at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 3	0100	*1040	*6.41	No other peak greater than base discharge.			

Minimum daily, 2.4 ft^3/s, Aug. 5.

REVISIONS.--The maximum discharges for water years 1983-85 have been revised, as shown in the following table. They supersede figures published in the reports for 1983-85. Only discharges for gage heights above 4.70 ft were revised.

Water Year	Date	Discharge (ft^3/s)	Gage height (ft)	Date	Discharge (ft^3/s)	Gage height (ft)
1983	Apr. 21	920	6.20	June 5	511	5.29
	May 20	*959	*6.27			
1984	Apr. 10	733	5.83	Aug. 1	1,030	6.39
	Apr. 24	1,020	6.38	Aug. 4	*1,720	*7.34
	June 29	427	5.04			
1985	May 17	*742	*5.85			

06712000 CHERRY CREEK NEAR FRANKTOWN, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	7.8	3.8	4.5	9.6	13	36	12	17	8.8	2.9	6.5
2	3.5	8.2	4.6	5.1	9.8	13	34	13	15	31	2.7	5.9
3	3.8	8.6	4.0	5.1	10	12	29	63	14	220	2.6	5.9
4	3.8	8.8	5.2	5.4	11	12	24	96	13	28	2.5	5.6
5	3.8	9.1	5.7	5.7	11	14	25	74	12	17	2.4	5.4
6	3.8	9.0	6.5	6.2	11	29	23	101	12	13	2.5	5.9
7	3.9	9.6	6.5	6.5	12	37	23	66	11	11	2.7	6.0
8	5.1	9.3	7.9	7.0	13	27	23	45	12	10	2.7	5.5
9	4.9	8.5	8.0	6.2	14	21	25	32	13	9.3	3.1	5.7
10	4.8	7.2	7.2	6.5	17	19	30	26	18	9.0	3.8	5.7
11	6.8	7.4	6.8	6.5	18	18	31	32	24	8.2	3.8	5.7
12	6.4	7.4	6.8	6.5	23	17	35	26	26	7.6	4.9	6.0
13	6.5	9.7	6.9	6.5	24	22	34	23	20	7.2	4.2	5.6
14	6.6	8.7	7.0	6.5	25	40	32	22	13	7.0	4.2	5.4
15	6.7	9.3	7.1	6.5	24	46	36	20	12	6.7	3.5	5.7
16	6.6	9.4	7.2	6.5	22	39	38	16	12	6.4	3.0	6.0
17	6.6	10	7.2	6.5	20	27	36	15	11	6.2	2.9	6.5
18	6.6	10	7.2	6.5	17	23	32	22	11	5.5	2.8	8.0
19	6.3	9.9	7.0	6.5	16	28	30	29	11	3.7	2.7	8.6
20	7.0	10	6.8	6.5	13	29	23	27	11	3.3	2.7	8.0
21	7.1	14	7.0	6.8	12	22	23	40	11	3.0	2.8	7.8
22	7.2	12	6.2	7.0	13	21	23	55	11	2.9	6.5	7.6
23	7.0	10	6.0	7.2	14	19	21	55	11	3.2	8.6	7.6
24	6.7	9.5	6.2	7.4	13	18	20	46	10	3.1	6.8	7.3
25	6.6	9.7	5.8	7.7	12	15	19	51	9.4	2.9	6.9	7.0
26	6.4	9.7	5.3	8.0	9.9	15	17	55	9.3	2.7	10	6.4
27	6.5	8.3	5.6	8.2	7.9	16	14	32	8.7	2.7	9.0	5.8
28	6.3	8.8	5.2	8.4	12	11	14	21	8.3	3.0	10	5.9
29	6.4	8.8	4.7	8.7	---	10	13	20	7.8	3.0	9.5	6.0
30	6.5	8.0	5.1	9.0	---	10	12	20	8.2	2.9	8.0	6.6
31	6.7	---	4.6	9.3	---	19	---	20	---	2.8	7.0	---
TOTAL	180.5	276.7	191.1	210.9	414.2	662	775	1175	382.7	451.1	147.7	191.6
MEAN	5.82	9.22	6.16	6.80	14.8	21.4	25.8	37.9	12.8	14.6	4.76	6.39
MAX	7.2	14	8.0	9.3	25	46	38	101	26	220	10	8.6
MIN	3.5	7.2	3.8	4.5	7.9	10	12	12	7.8	2.7	2.4	5.4
AC-FT	358	549	379	418	822	1310	1540	2330	759	895	293	380

CAL YR 1986 TOTAL 3392.1 MEAN 9.29 MAX 61 MIN 2.2 AC-FT 6730
WTR YR 1987 TOTAL 5058.5 MEAN 13.9 MAX 220 MIN 2.4 AC-FT 10030

06712990 CHERRY CREEK LAKE NEAR DENVER, CO

LOCATION.--Lat 39°09'03", long 104°51'13", in NW¼NE¼ sec.2, T.5 S., R.67 W., Arapahoe County, Hydrologic Unit 10190003, 0.8 mi southwest from intersection of Interstate Highway 225 and Parker Road, 0.2 mi from right end of dam, 1.6 mi northwest of intersection of Parker and Airline Roads, and 11.5 mi upstream from mouth.

DRAINAGE AREA.--385 mi².

PERIOD OF RECORD.--Contents, October 1950 to current year. Water-quality data available, October 1976 to September 1981.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army, Corps of Engineers); gage readings have been reduced to elevations above National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam. Dam completed in June 1950; storage began May 15, 1957. Capacity, 92,820 acre-ft, at elevation 5,598.00 ft, crest of spillway. No dead storage. Figures given represent total contents. Reservoir is for flood control and recreation.

COOPERATION.--Records provided by U.S. Army, Corps of Engineers. Capacity revised on basis of new capacity table dated January 1975.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 31,120 acre-ft, June 3, 1973, elevation, 5,565.82 ft; minimum, 9,980 acre-ft, Nov. 23, 24, 1978, elevation, 5,545.90 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 15,450 acre-ft, Apr. 13, elevation, 5,552.51 ft; minimum, 13,270 acre-ft, June 16, elevation, 5,550.05 ft.

MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	5,550.45	13,620	-
Oct. 31	5,550.61	13,750	+130
Nov. 30	5,550.89	14,000	+250
Dec. 31	5,551.15	14,230	+230
CAL YR 1986	-	-	+40
Jan. 31	5,551.96	14,950	+720
Feb. 28	5,551.52	14,560	-390
Mar. 31	5,551.69	14,710	+150
Apr. 30	5,550.70	13,830	-880
May 31	5,551.97	14,960	+1,130
June 30	5,550.33	13,510	-1,450
July 31	5,550.92	14,020	+510
Aug. 31	5,550.22	13,420	-600
Sept. 30	5,550.16	13,360	-60
WTR YR 1987	-	-	-260

06713000 CHERRY CREEK BELOW CHERRY CREEK LAKE, CO

LOCATION.--Lat 39°39'12", long 104°51'41", in SW¼SW¼ sec.35, T.4 S., R.67 W., Arapahoe County, Hydrologic Unit 10190003, on right bank 2,000 ft downstream from Cherry Creek Dam, 2.2 mi southeast of Sullivan, 9 mi southeast of Civic Center in Denver, and 11 mi upstream from mouth.

DRAINAGE AREA.--385 mi².

PERIOD OF RECORD.--June 1950 to current year.

REVISED RECORDS.--WSP 1730: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5,490.51 [illegible] (Corps of Engineers bench mark).

REMARKS.--Estimated daily discharges: Aug. 23-25. Records good. Flow regulated by Cherry Creek Lake (see elsewhere in this report). Diversions upstream from station for irrigation [illegible] about 1,000 acres. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--37 years, 6.63 ft³/s; 4,800 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,440 ft³/s July 31, 1956, gage height, 6.07 ft; no flow most of time since May 1957.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood known, 34,000 ft³/s Aug. 3, 1933, by slope-area measurement near present site (Castlewood Dam failure).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 625 ft³/s at 0930 Feb. 27, gage height, 5.27 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	55	.00	71	85	1.3	1.0	.00
2	.00	.00	.00	.00	.00	55	.00	73	85	1.3	1.0	.00
3	.00	.00	.00	.00	.00	54	.00	75	85	1.3	1.0	.00
4	.00	.00	.00	.00	.00	55	.00	75	85	1.3	1.1	.00
5	.00	.00	.00	.00	.00	53	.00	35	85	1.3	1.1	.00
6	.00	.00	.00	.00	.00	52	.00	.25	84	1.3	1.0	.00
7	.00	.00	.00	.00	.00	52	.00	.00	83	1.3	1.0	.00
8	.00	.00	.00	.00	.00	52	.00	.00	83	1.5	1.0	.00
9	.00	.00	.00	.00	.00	52	.00	.00	81	.76	1.0	.00
10	.00	.00	.00	.00	43	50	26	.00	79	.75	.75	.00
11	.00	.00	.00	.00	44	20	44	.00	54	1.1	.50	.00
12	.00	.00	.00	.00	46	.00	47	.00	34	1.3	.50	.00
13	.00	.00	.00	.00	45	.00	43	.00	32	1.0	.50	.00
14	.00	.00	.00	.00	42	.00	63	22	31	1.0	.50	.25
15	.00	.00	.00	.00	41	.00	77	36	16	1.0	.50	.13
16	.00	.00	.00	.00	41	.00	71	37	.50	1.0	.25	.00
17	.00	.00	.00	.00	41	.00	71	42	.50	1.0	.25	.25
18	.00	.00	.00	.00	41	.00	71	39	.50	1.0	.25	.00
19	.00	.00	.00	.00	41	.00	71	39	.75	1.0	.25	.00
20	.00	.00	.00	.00	41	.00	71	40	1.0	1.0	.25	.00
21	.00	.00	.00	.00	43	.00	71	41	1.0	1.0	.25	.00
22	.00	.00	.00	.00	44	.00	69	41	1.1	.75	.50	.00
23	.00	.00	.00	.00	44	.00	69	76	1.9	1.3	.50	.00
24	.00	.00	.00	.00	44	.00	69	96	1.6	1.2	20	.00
25	.00	.00	.00	.00	42	.00	69	96	1.6	.75	78	.00
26	.00	.00	.00	.00	61	.00	69	96	1.3	.75	92	.00
27	.00	.00	.00	.00	143	.00	69	96	1.3	1.0	99	.00
28	.00	.00	.00	.00	53	.00	71	63	1.5	1.1	27	.00
29	.00	.00	.00	.00	---	.00	71	53	2.0	1.0	.50	.00
30	.00	.00	.00	.00	---	.00	71	85	1.5	1.0	.50	.00
31	.00	---	.00	.00	---	.00	---	85	---	1.0	.25	---
TOTAL	.00	.00	.00	.00	940.00	550.00	1353.00	1412.25	1020.05	33.36	332.20	.63
MEAN	.00	.00	.00	.00	33.6	17.7	45.1	45.6	34.0	1.08	10.7	.02
MAX	.00	.00	.00	.00	143	55	77	96	85	1.5	99	.25
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.50	.75	.25	.00
AC-FT	.0	.0	.0	.0	1860	1090	2680	2800	2020	66	659	1.2

CAL YR 1986 TOTAL 3938.34 MEAN 10.8 MAX 230 MIN .00 AC-FT 7810

WTR YR 1987 TOTAL 5641.48 MEAN 15.5 MAX 143 MIN .00 AC-FT 11190

06713300 CHERRY CREEK AT GLENDALE, CO.

LOCATION.--Lat 39°42'22", long 104°56'13", in SW¼NW¼ sec.18, T.4 S., R.67 W., Denver County, Hydrologic Unit 10190003, on left bank 900 ft upstream from Colorado Blvd. on Cherry Creek South Drive and Ash Ct. in the City of Glendale, and 5 miles downstream from Cherry Creek Reservoir.

DRAINAGE AREA.--404 mi^2.

PERIOD OF RECORD.--January 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,320 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 22-25, Feb. 20, 23, Apr. 22 to May 1, June 3-12. Records fair except for estimated daily discharges, which are poor. Flow regulated Cherry Creek Lake (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,970 ft^3/s, July 20, 1986, gage height, 6.74 ft, maximum gage height, 7.54 ft, June 8, 1987; minimum daily discharge, 3.9 ft^3/s, Apr. 1, 1986, Dec. 18-20, 27, 28, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,160 ft^3/s, June 8, gage height, 7.54 ft, from floodmarks; minimum daily, 3.9 ft^3/s, Dec. 18-20, 27, 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	42	15	4.3	5.0	100	20	88	93	16	13	18
2	6.1	15	10	4.5	5.0	100	27	111	101	21	12	19
3	15	11	6.4	4.6	5.1	98	21	139	91	20	12	19
4	12	9.4	4.8	4.4	5.2	96	19	98	87	16	12	19
5	6.1	7.5	5.3	4.3	6.1	93	17	68	91	17	12	26
6	5.9	7.2	5.1	4.1	5.3	93	16	35	94	18	13	26
7	5.9	21	5.0	4.2	5.4	93	16	19	99	18	14	18
8	6.2	8.6	4.9	4.5	5.5	112	15	15	155	36	16	16
9	17	7.3	4.4	5.0	5.6	97	15	14	94	23	13	17
10	25	6.5	4.0	5.1	9.8	94	27	13	59	17	13	17
11	49	6.2	4.3	5.9	31	65	55	13	49	21	12	16
12	16	6.1	4.4	5.8	39	16	101	21	49	41	11	16
13	13	5.9	4.4	4.9	39	15	69	14	49	20	12	16
14	9.9	6.0	4.5	4.4	50	14	72	126	50	16	15	26
15	8.1	6.0	4.4	4.4	61	13	87	65	42	15	13	38
16	8.0	5.9	4.2	4.5	47	25	85	44	21	15	12	16
17	7.9	5.7	4.0	4.9	47	14	85	191	21	17	11	23
18	8.1	5.5	3.9	5.5	52	12	84	69	26	16	9.8	25
19	8.2	5.5	3.9	5.7	61	15	84	43	26	15	12	26
20	16	5.3	3.9	5.8	61	19	97	55	26	16	13	26
21	7.8	5.3	4.1	6.0	61	18	79	123	25	16	16	27
22	7.5	5.3	4.1	6.4	60	28	78	72	24	15	187	25
23	13	5.3	4.1	6.8	51	20	84	182	37	28	32	24
24	11	5.2	4.1	9.0	51	19	88	181	24	33	85	19
25	7.0	5.1	4.1	11	52	19	86	89	20	12	108	17
26	6.7	5.0	4.0	11	62	19	86	84	21	10	213	17
27	6.5	4.8	3.9	9.9	155	39	86	82	22	11	129	14
28	6.5	4.9	3.9	7.1	93	27	86	76	21	19	55	13
29	6.3	4.9	4.1	5.7	---	18	86	58	184	19	20	12
30	6.3	5.8	4.1	5.0	---	21	88	107	48	15	19	11
31	26	---	4.1	5.0	---	22	---	102	---	15	19	---
TOTAL	354.2	245.2	151.4	179.7	1131.0	1434	1859	2397	1749	587	1133.8	602
MEAN	11.4	8.17	4.88	5.80	40.4	46.3	62.0	77.3	58.3	18.9	36.6	20.1
MAX	49	42	15	11	155	112	101	191	184	41	213	38
MIN	5.9	4.8	3.9	4.1	5.0	12	15	13	20	10	9.8	11
AC-FT	703	486	300	356	2240	2840	3690	4750	3470	1160	2250	1190

CAL YR 1986 TOTAL 7393.2 MEAN 20.3 MAX 279 MIN 3.9 AC-FT 14660
WTR YR 1987 TOTAL 11823.3 MEAN 32.4 MAX 213 MIN 3.9 AC-FT 23450

06713500 CHERRY CREEK AT DENVER, CO

LOCATION.--Lat 39°44'58", long 105°00'08", in NE¼ sec.33, T.3 S., R.68 W., Denver County, Hydrologic Unit 10190003, on right bank on downstream side of Wazee Street Bridge in Denver, 0.5 mi upstream from mouth.

DRAINAGE AREA.--409 mi².

PERIOD OF RECORD.--August 1942 to September 1969, February 1980 to September 1983, and annual maximums 1984, 1985. April 1986 to current year.

REVISED RECORDS.--WSP 1710: Drainage area. WDR CO-82-1: 1982 (M).

GAGE.--Water-stage recorder. Elevation of gage is 5,175.48 ft above National Geodetic Vertical Datum of 1929. See WSP 1730 for history of changes prior to July 16, 1951. July 16, 1951 to Sept. 30, 1969, water-stage recorder at present site and datum.

REMARKS.--Estimated daily discharges: Oct. 4-7, July 16, 17, 24. Records fair. Several diversions upstream from station for irrigation of about 1,900 acres. Floodflow regulated by Cherry Creek Reservoir 11 mi upstream, capacity, 95,960 acre-ft. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--31 years (water years 1943-69, 1981-83, 1987), 18.6 ft³/s; 13,480 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 3,120 ft³/s, Aug. 5, 1945, gage height, 5.25 ft, site and datum then in use; maximum gage height, 11.91 ft, June 17, 1965 (backwater from South Platte River); minimum daily discharge, 0.4 ft³/s, June 16-18, 1948.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 26, 1885, reached a discharge of 20,000 ft³/s, by float measurement. Flood of May 19, 20, 1864, reached a somewhat higher stage. Flood of Aug. 3, 1933, reached a discharge of about 15,000 ft³/s, as determined by rise of South Platte River at Denver.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,530 ft³/s at 2215 June 8, gage height, 6.30 ft; minimum daily, 7.1 ft³/s, Apr. 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	94	33	13	9.1	112	12	129	116	43	22	18
2	16	25	20	13	9.4	99	19	145	127	34	22	18
3	40	19	15	12	9.3	93	13	223	118	44	22	17
4	30	15	14	12	10	90	9.8	142	108	30	20	32
5	22	14	16	13	11	96	8.0	104	107	30	21	34
6	15	14	14	13	10	100	7.6	47	106	28	20	43
7	15	42	17	14	9.1	100	7.5	26	108	27	22	20
8	20	14	15	15	8.4	139	7.4	20	194	27	27	27
9	48	13	15	16	9.3	110	7.1	24	233	50	17	22
10	56	13	14	14	11	102	12	22	109	30	19	17
11	115	13	15	15	38	77	42	21	106	27	19	14
12	38	13	15	15	51	19	137	28	71	68	18	15
13	25	12	15	14	52	14	81	26	67	34	18	14
14	21	12	14	13	72	14	74	102	66	27	21	32
15	17	12	14	13	84	13	102	118	65	24	20	65
16	17	11	14	13	53	40	95	69	38	23	20	21
17	17	12	14	12	49	19	93	164	34	26	18	41
18	18	12	14	13	52	13	99	106	36	25	19	36
19	16	13	15	13	70	13	98	69	46	25	19	36
20	33	13	14	12	68	16	146	84	32	25	17	36
21	16	13	15	12	55	12	110	139	39	24	19	35
22	16	13	14	12	49	29	106	115	33	25	268	32
23	24	13	14	13	48	14	113	153	31	63	70	31
24	20	13	14	15	48	12	117	220	63	43	102	22
25	15	13	14	20	49	11	115	126	33	27	154	18
26	14	13	13	16	64	11	114	113	32	23	266	17
27	14	13	12	15	168	40	113	110	30	23	174	13
28	14	13	13	13	142	21	113	108	30	28	83	12
29	13	13	13	11	---	13	113	68	67	35	21	12
30	14	18	14	10	---	12	114	135	233	29	18	11
31	60	---	13	9.7	---	13	---	136	---	21	20	---
TOTAL	814	521	466	414.7	1308.6	1467	2198.4	3092	2478	988	1596	761
MEAN	26.3	17.4	15.0	13.4	46.7	47.3	73.3	99.7	82.6	31.9	51.5	25.4
MAX	115	94	33	20	168	139	146	223	233	68	268	65
MIN	13	11	12	9.7	8.4	11	7.1	20	30	21	17	11
AC-FT	1610	1030	924	823	2600	2910	4360	6130	4920	1960	3170	1510

WTR YR 1987 TOTAL 16104.7 MEAN 44.1 MAX 268 MIN 7.1 AC-FT 31940

06714000 SOUTH PLATTE RIVER AT DENVER, CO

LOCATION.--Lat 39°45'35", long 105°00'10", in NW¼SE¼ sec.28, T.3 S., R.68 W., Denver County, Hydrologic Unit 10190003, on right bank 90 ft upstream from Nineteenth Street Bridge in Denver and 0.4 mi downstream from Cherry Creek.

DRAINAGE AREA.--3,861 mi^2.

PERIOD OF RECORD.--May to October 1889, June to October 1890, July 1895 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1934(M). WSP 1730: 1957(M). WDR CO-86-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,157.64 ft above National Geodetic Vertical Datum, adjustment of 1960. Prior to Aug. 12, 1909, nonrecording gages, and Aug. 12, 1909, to Aug. 28, 1931, water-stage recorder, at several sites within 0.5 mi of present site at various datums. Aug. 29, 1931, to June 28, 1965, water-stage recorder at site 70 ft downstream at datum 3.66 ft, higher. June 29, 1965, to Mar. 18, 1966, water-stage recorder at site 70 ft downstream at present datum.

REMARKS.--Estimated daily discharges: Oct. 1, 2, 5-8, 11, 12, 14, 17-31, Nov. 24-29, Dec. 10, 12, 13, 15, 18, 20-22, 25-27, Dec. 29 to Jan. 5, Jan. 10, 11, 14, 16-18, 20-22, Feb. 1, 4, 6, 7, 9, Aug. 5, and Sept. 26-30. Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 79,000 acres and municipal use, and return flow from irrigated areas. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--12 years (water years 1896-1974), 344 ft^3/s; 249,200 acre-ft/yr, prior to completion of Chatfield Dam; 12 years (water years 1976-87), 440 ft^3/s; 318,800 acre-ft/yr, subsequent to completion of Chatfield Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,300 ft^3/s, June 17, 1965, gage height, 18.66 ft, from floodmarks, present datum, from rating curve extended above 2,700 ft^3/s, on basis of contracted-opening measurement of peak flow; minimum daily, 8.8 ft^3/s, Mar. 25, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,200 ft^3/s at 2230 June 8, gage height. 7.77 ft; minimum daily, 100 ft^3/s, Jan. 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	491	215	110	115	208	224	1480	1950	935	229	267
2	131	196	171	114	117	206	391	998	1400	912	296	244
3	234	160	128	113	117	214	397	1790	1450	994	361	246
4	212	270	123	110	116	225	401	1770	1380	802	413	355
5	128	361	131	109	118	242	397	2040	1270	794	529	340
6	130	364	131	163	110	261	330	2260	1250	748	587	288
7	138	529	135	341	115	289	237	2550	1270	633	590	243
8	138	236	129	226	114	497	234	3000	1920	617	414	249
9	306	282	123	218	114	339	111	3100	2550	583	358	236
10	149	310	113	120	118	336	154	3210	2840	494	373	230
11	149	442	117	128	141	324	262	3190	2500	414	396	230
12	149	456	116	127	150	252	645	2990	2080	628	575	227
13	143	445	116	119	140	247	374	2760	1940	500	592	226
14	145	375	120	116	216	262	332	2900	1650	512	561	249
15	130	235	120	114	284	261	347	2770	1550	720	445	370
16	128	239	119	110	192	424	400	2750	1340	793	332	224
17	122	246	116	112	166	275	450	3060	1100	637	244	237
18	118	163	112	114	179	245	577	2900	1050	531	239	187
19	119	132	118	114	243	258	608	3170	1070	504	235	166
20	195	131	110	112	243	277	883	3290	1160	365	228	158
21	135	128	110	100	185	310	910	3810	1100	330	265	152
22	125	128	109	115	157	408	931	3560	903	200	1350	145
23	149	133	113	117	153	331	983	3830	932	198	514	148
24	148	120	109	130	146	307	1080	3870	775	267	788	132
25	128	120	111	174	147	285	1280	3550	988	177	854	121
26	120	120	112	149	158	233	1300	3920	1010	151	1200	120
27	120	115	109	142	276	367	1450	4020	835	160	572	115
28	116	115	115	135	268	252	1790	3590	749	155	321	115
29	117	115	110	122	---	208	1550	2480	2240	181	248	125
30	118	143	110	114	---	201	1440	2280	1540	161	282	120
31	330	---	112	111	---	218	---	2250	---	163	276	---
TOTAL	4698	7300	3783	4199	4598	8762	20468	89138	43792	15259	14667	6265
MEAN	152	243	122	135	164	283	682	2875	1460	492	473	209
MAX	330	529	215	341	284	497	1790	4020	2840	994	1350	370
MIN	116	115	109	100	110	201	111	998	749	151	228	115
AC-FT	9320	14480	7500	8330	9120	17380	40600	176800	86860	30270	29090	12430

CAL YR 1986 TOTAL 110187 MEAN 302 MAX 1180 MIN 109 AC-FT 218600
WTR YR 1987 TOTAL 222929 MEAN 611 MAX 4020 MIN 100 AC-FT 442200

06714215 SOUTH PLATTE RIVER AT 64TH AVENUE AT COMMERCE CITY, CO

LOCATION.--Lat 39°48'44", long 104°57'28", in NW¼NW¼ sec. 12, T.3 S., R.68 W., Adams County, Hydrologic Unit 10190003, on right bank 300 ft southeast of intersection of York Street and East 64th Avenue and 1,900 ft upstream from mouth of Sand Creek at northeast corner of Metro Denver Sewage Disposal plant at Commerce City.

DRAINAGE AREA.--3,884 mi².

PERIOD OF RECORD.--January 1982 to current year.

REVISED RECORDS.--CO-86-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,105 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by transmountain diversions, storage and flood-control reservoirs, power developments, diversions for irrigation and municipal use, and return flow from irrigated areas. Several observation of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--5 years, 534 ft³/s; 386,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,300 ft³/s, June 8, 1987, gage height, 8.09 ft; minimum daily, 4.0 ft³/s, Mar. 25, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,300 ft³/s at 2300, June 8, gage height 8.09 ft; minimum daily, 5.8 ft³/s, Oct. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	236	13	14	38	258	55	1080	1840	430	126	15
2	29	14	17	14	45	245	192	645	982	451	179	15
3	37	9.3	25	13	28	255	222	1540	948	474	245	16
4	55	7.8	23	14	17	268	209	1550	839	292	284	122
5	33	8.1	23	13	15	285	207	1840	743	287	392	28
6	30	7.8	22	18	13	294	170	2030	732	326	460	54
7	30	75	23	16	20	138	63	2280	744	358	194	17
8	29	8.1	23	14	15	302	100	2700	1510	333	329	16
9	134	7.2	22	13	17	218	12	2810	2290	289	258	15
10	103	12	23	12	17	265	13	2890	2710	343	265	15
11	279	12	19	13	16	264	33	2690	2190	348	279	14
12	47	15	16	13	15	195	316	2620	1660	564	419	14
13	39	14	17	13	14	213	137	2400	1580	437	431	13
14	36	10	17	14	32	228	48	2490	1240	434	427	26
15	37	7.8	15	13	61	229	56	2360	1060	574	322	100
16	42	8.1	13	13	18	386	118	2240	864	672	234	14
17	20	13	27	12	36	256	290	2500	657	547	131	15
18	16	12	24	10	49	222	396	2340	631	448	117	13
19	17	20	25	11	101	223	439	2820	602	415	130	14
20	51	22	24	9.0	140	223	749	3400	628	309	125	13
21	24	16	24	8.7	90	247	795	4080	581	285	135	12
22	16	16	22	8.4	70	334	819	3830	407	149	1320	11
23	14	15	19	7.5	150	245	864	3880	414	132	422	11
24	13	12	17	8.0	176	171	866	3990	371	173	597	10
25	11	11	17	78.2	88	123	1040	3530	606	85	625	9.9
26	7.8	11	17	73	86	46	1040	3940	566	65	610	9.2
27	6.9	13	15	79	258	109	1000	4110	524	65	193	9.8
28	6.1	12	16	24	302	67	1320	3720	806	65	25	21
29	6.1	11	14	18	---	39	1080	2380	2260	91.0	23	22
30	5.8	11	14	28	---	28	924	2150	953	91	21	18
31	84	---	13	37	---	61	---	2100	---	70	17	---
TOTAL	1287.7	647.2	599	631.8	1927	6437	13573	82935	31938	9602.0	9335	682.9
MEAN	41.5	21.6	19.3	20.4	68.8	208	452	2675	1065	310	301	22.8
MAX	279	236	27	79	302	386	1320	4110	2710	672	1320	122
MIN	5.8	7.2	13	7.5	13	28	12	645	371	65	17	9.2
AC-FT	2550	1280	1190	1250	3820	12770	26920	164500	63350	19050	18520	1350

CAL YR 1986 TOTAL 53901.4 MEAN 148 MAX 1190 MIN 5.8 AC-FT 106900
WTR YR 1987 TOTAL 159595.5 MEAN 437 MAX 4110 MIN 5.8 AC-FT 316600

06719505 CLEAR CREEK AT GOLDEN, CO

LOCATION.--Lat 39°45'11", long 105°14'05", in NE¼NW¼ sec.33, T.3 S., R.70 W., Jefferson County, Hydrologic Unit 10190004, on left bank 100 ft downstream from U.S. Highway 6 bridge at west edge of Golden, 0.7 mi downstream from headgate of Church ditch, and 13.3 mi downstream from North Clear Creek.

DRAINAGE AREA.--400 mi².

PERIOD OF RECORD.--October 1974 to current year. Records for station at site 0.8 mi upstream (October 1908 to December 1909, June 1911 to September 1974) are not equivalent due to diversions by Church ditch. Sediment data available April to September 1981.

GAGE.--Water-stage recorder. Elevation of gage is 5,695 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 31, Nov. 1, 3, 9-11, Dec. 2-4, Dec. 9 to Jan. 22, Jan. 25-29, Feb. 5, 6, 15-17, Feb. 20 to Mar. 1, 4-10, 29-31, May 31, July 13-28. Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by minor transmountain diversions from Colorado River basin through Berthoud Pass ditch (see elsewhere in this report) and several small reservoirs upstream from station. Diversion by Welch ditch 1.4 mi upstream from station and by Church Ditch 0.7 mi upstream from station for irrigation of about 5,200 acres downstream from station.

AVERAGE DISCHARGE.--13 years, 196 ft³/s; 142,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,370 ft³/s, July 10, 1983, gage height, 6.44 ft, minimum daily, 18 ft³/s, Dec. 2, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 958 ft³/s at 2400 June 9, gage height, 3.95 ft; minimum daily, 33 ft³/s, Jan. 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	81	78	45	48	49	46	297	524	450	220	133
2	95	73	63	45	50	49	46	308	561	397	188	136
3	90	82	58	45	48	49	45	290	572	375	182	131
4	91	79	58	45	48	49	48	269	617	356	174	135
5	85	74	56	45	48	49	49	267	698	338	154	133
6	90	83	55	45	48	49	47	278	706	319	150	125
7	96	96	54	45	48	49	48	306	743	297	157	123
8	98	82	53	45	48	48	51	322	779	290	150	124
9	96	74	50	45	48	46	53	363	833	278	139	122
10	88	70	45	45	47	46	50	444	844	261	141	118
11	104	60	45	45	47	48	54	437	795	249	154	117
12	85	50	50	45	47	49	65	434	580	259	164	114
13	83	50	50	45	47	50	51	454	569	250	156	111
14	89	57	50	45	47	52	51	499	550	240	155	111
15	86	57	50	40	47	49	65	512	660	240	143	117
16	85	59	50	33	47	47	87	661	760	240	139	116
17	82	62	50	36	47	46	113	670	490	240	133	120
18	81	66	50	36	47	50	138	672	529	240	133	122
19	80	72	50	36	47	53	150	631	598	230	129	112
20	113	77	50	36	47	57	159	608	546	210	123	106
21	97	72	50	36	47	40	123	543	521	210	122	102
22	85	77	50	49	47	52	123	604	503	210	154	95
23	90	71	50	50	47	47	142	631	505	220	151	93
24	90	67	50	55	47	44	172	703	491	240	183	91
25	85	87	50	47	49	44	180	638	458	250	151	90
26	81	84	50	47	49	44	196	619	442	250	137	87
27	82	79	50	47	49	44	215	577	425	250	128	87
28	81	83	50	47	49	41	234	540	412	250	124	84
29	76	81	50	47	---	42	264	529	507	246	123	83
30	75	84	50	49	---	42	261	499	519	205	119	84
31	78	---	50	49	---	44	---	500	---	202	127	---
TOTAL	2737	2189	1615	1370	1335	1468	3326	15105	17737	8292	4603	3322
MEAN	88.3	73.0	52.1	44.2	47.7	47.4	111	487	591	267	148	111
MAX	113	96	78	55	50	57	264	703	844	450	220	136
MIN	75	50	45	33	47	40	45	267	412	202	119	83
AC-FT	5430	4340	3200	2720	2650	2910	6600	29960	35180	16450	9130	6590

CAL YR 1986 TOTAL 81058 MEAN 222 MAX 1350 MIN 22 AC-FT 160800
WTR YR 1987 TOTAL 63099 MEAN 173 MAX 844 MIN 33 AC-FT 125200

06719505 CLEAR CREEK AT GOLDEN, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1977 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1981 to current year.
pH: March to September 1981.
WATER TEMPERATURE: March 1981 to current year.
DISSOLVED OXYGEN: March to September 1981.
SUSPENDED-SEDIMENT DISCHARGE: March to September 1981.

INSTRUMENTATION.--Water-quality monitor since March 1981.

REMARKS.--Records rated fair. Daily maximum and minimum specific conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum mean, 597 microsiemens Jan. 9, 1983; minimum mean, 38 microsiemens July 1, 1983.
pH: Maximum, 8.7 units Mar. 27, April 10, 1981; minimum, 6.6 units July 16, 1981.
WATER TEMPERATURES: Maximum, 23.0°C Aug. 4, 1981; minimum, freezing point on many days during winter months most years.
DISSOLVED OXYGEN: Maximum, 14.2 mg/L May 7, 1981; minimum, 5.2 mg/L July 16, 1981.
SEDIMENT CONCENTRATIONS: Maximum daily, 282 mg/L May 29, 1981; minimum daily, 3 mg/L Sept. 21-24, 1981.
SEDIMENT LOADS: Maximum daily, 230 tons June 3, 1981; minimum daily, 0.62 ton Sept. 23-24, 1981.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum mean, 364 microsiemens Feb. 22; minimum mean, 84 microsiemens May 18, 19.
WATER TEMPERATURES: Maximum, 16.0°C July 25-27; minimum, 0.0°C on many days during winter months.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	222	262	325	316	349	323	170	103	146	---	191
2	---	245	276	330	318	347	323	166	102	148	---	193
3	---	234	239	324	322	336	336	169	105	149	---	194
4	---	231	241	312	322	329	320	178	103	152	---	197
5	---	236	259	307	321	320	313	181	99	153	---	201
6	---	235	254	307	329	312	310	176	100	154	158	206
7	---	232	257	309	323	297	309	172	99	154	158	210
8	---	232	261	310	319	295	305	168	99	155	163	214
9	---	225	263	314	321	311	309	160	95	155	165	214
10	---	236	251	327	322	318	319	148	95	156	167	216
11	---	240	245	328	320	320	309	138	95	156	164	219
12	---	229	234	319	315	321	290	132	97	158	164	224
13	---	235	257	321	315	317	296	123	100	156	166	229
14	---	239	278	322	312	315	305	111	102	160	167	233
15	---	237	283	325	318	313	293	105	106	163	169	236
16	---	241	278	330	324	314	283	96	109	165	172	240
17	---	246	284	334	328	323	265	91	113	165	174	244
18	---	247	305	352	332	324	251	84	118	158	171	242
19	---	247	313	343	330	321	247	84	124	163	168	245
20	---	247	303	336	329	319	234	85	128	164	171	254
21	---	253	300	340	341	318	237	88	133	165	173	263
22	---	255	307	344	364	315	236	89	139	163	175	267
23	---	251	315	340	349	324	233	89	140	167	166	269
24	---	274	317	328	341	330	227	95	141	167	161	272
25	---	248	311	313	335	328	218	98	140	164	164	278
26	---	253	317	313	326	325	209	97	142	164	169	283
27	---	257	330	315	334	318	206	99	142	161	172	287
28	---	256	327	313	343	327	206	103	143	161	174	288
29	---	261	317	313	---	337	189	105	151	155	181	294
30	---	253	315	321	---	331	179	108	146	160	187	301
31	224	---	319	319	---	327	---	110	---	159	190	---
MEAN	---	243	284	324	327	322	269	123	117	159	---	240

06719505 CLEAR CREEK AT GOLDEN, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	2.5	1.0	.0	.0	.0	.0	.0	.0	.5	.0
2	---	---	3.0	1.0	.0	.0	.0	.0	.0	.0	.5	.0
3	---	---	4.0	2.0	.0	.0	.0	.0	.0	.0	1.0	.0
4	---	---	4.5	2.5	.0	.0	.0	.0	.0	.0	2.5	.0
5	---	---	4.0	2.0	.0	.0	.0	.0	.5	.0	4.0	.0
6	---	---	4.5	2.5	.0	.0	.0	.0	.5	.0	5.0	.0
7	---	---	2.5	.0	.0	.0	.0	.0	1.0	.0	6.0	1.0
8	---	---	1.0	.0	.0	.0	.0	.0	1.5	.0	3.5	1.0
9	---	---	.0	.0	.0	.0	.0	.0	1.5	.0	1.0	.0
10	---	---	.0	.0	.0	.0	.0	.0	1.0	.0	4.0	.0
11	---	---	.0	.0	.0	.0	.0	.0	2.0	.0	4.0	1.0
12	---	---	.0	.0	.0	.0	.0	.0	2.0	.0	6.0	1.0
13	---	---	.0	.0	.0	.0	.0	.0	2.5	.0	6.5	2.0
14	---	---	.5	.0	.0	.0	.0	.0	1.5	.0	7.0	2.5
15	---	---	.5	.0	.0	.0	.0	.0	2.0	.0	5.5	3.0
16	---	---	1.5	.0	.0	.0	.0	.0	.5	.0	3.5	1.5
17	---	---	3.5	1.0	.0	.0	.5	.0	2.0	.0	3.0	1.0
18	---	---	3.0	2.0	1.0	.0	.0	.0	1.0	.0	7.0	1.0
19	---	---	4.5	2.5	.5	.0	.0	.0	.0	.0	7.0	2.0
20	---	---	3.0	1.5	.0	.0	.0	.0	.5	.0	5.0	1.5
21	---	---	2.5	1.5	.0	.0	.0	.0	.5	.0	4.0	.0
22	---	---	2.5	1.5	.0	.0	.0	.0	.5	.0	2.0	.0
23	---	---	1.5	.0	.0	.0	.5	.0	.5	.0	5.0	.0
24	---	---	1.5	.0	.0	.0	.5	.0	.5	.0	3.0	.5
25	---	---	1.0	.5	.0	.0	.5	.5	.5	.0	3.5	.0
26	---	---	1.0	.0	.0	.0	.5	.5	.0	.0	6.0	.0
27	---	---	1.0	.0	.0	.0	.5	.0	.5	.0	2.5	.0
28	---	---	3.0	1.0	.0	.0	.5	.0	.5	.0	1.5	.0
29	---	---	2.5	1.0	.0	.0	.5	.0	---	---	.5	.0
30	---	---	1.0	.0	.0	.0	.5	.0	---	---	1.0	.0
31	5.7	1.8	---	---	.0	.0	.0	.0	---	---	5.0	.0
MONTH	---	---	4.5	.0	1.0	.0	.5	.0	2.5	.0	7.5	.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.0	1.5	10.0	7.5	14.0	9.5	12.0	9.5	---	---	12.5	9.5
2	6.0	.5	9.0	7.0	13.0	9.5	13.0	9.5	---	---	12.0	10.0
3	8.0	1.0	7.5	5.5	13.0	9.5	13.5	10.5	---	---	11.5	9.0
4	7.0	3.0	7.5	5.0	14.0	9.0	12.5	11.0	---	---	10.5	9.0
5	5.5	3.5	8.5	7.0	14.0	10.5	13.0	10.0	---	---	11.0	8.5
6	8.5	3.0	12.0	7.0	14.0	10.0	13.0	10.5	14.0	12.0	10.0	8.0
7	9.0	3.5	12.0	7.0	13.0	9.5	13.0	11.0	14.5	12.0	9.5	7.0
8	9.0	4.0	13.0	8.0	12.0	10.0	13.0	10.5	15.0	12.0	10.5	7.5
9	9.0	5.5	13.0	9.0	11.0	10.0	13.0	10.5	14.0	12.5	11.0	8.0
10	9.5	4.0	12.5	9.0	12.0	9.0	13.0	10.5	14.5	11.5	10.0	7.5
11	8.5	5.0	11.5	8.5	12.0	9.0	12.0	11.0	13.5	11.8	9.0	7.0
12	8.0	2.5	11.5	8.0	12.5	9.0	12.0	10.0	12.5	12.0	9.5	6.5
13	5.5	1.0	13.0	8.0	13.0	9.5	12.5	9.0	12.5	11.0	9.0	7.0
14	8.5	1.0	13.0	8.0	12.0	9.5	14.0	10.0	13.5	10.0	10.0	7.5
15	11.5	5.5	13.0	8.0	12.0	9.5	14.5	11.0	13.5	10.0	8.5	7.0
16	12.0	6.5	11.0	8.5	12.0	9.5	13.5	11.0	14.0	11.0	9.0	6.5
17	13.0	7.0	10.5	8.5	12.0	9.0	14.0	11.0	14.0	10.0	8.0	6.0
18	12.0	7.0	11.5	8.0	12.0	9.0	13.5	11.0	13.5	10.0	8.0	5.0
19	13.0	6.5	10.5	8.0	14.5	9.0	14.5	11.0	13.5	10.0	8.0	5.0
20	8.5	3.0	11.0	8.5	13.0	10.0	14.5	11.0	13.0	10.5	8.0	5.0
21	9.5	2.0	10.0	8.5	13.0	10.0	15.0	11.0	13.5	11.5	8.0	5.5
22	12.0	4.0	10.5	7.0	13.0	9.0	15.0	12.0	12.5	10.5	8.0	5.0
23	13.0	6.5	11.0	8.5	13.0	10.0	15.5	12.0	10.5	10.0	8.0	5.0
24	11.0	7.5	10.0	8.5	12.0	10.0	15.0	12.5	12.0	10.0	9.0	6.0
25	11.0	7.0	11.5	7.0	13.0	9.5	16.0	12.0	12.0	10.0	8.5	6.0
26	11.5	7.0	11.5	7.5	14.0	11.0	16.0	13.0	11.0	10.0	8.0	6.0
27	10.0	8.0	9.0	7.0	13.5	10.5	16.0	13.0	12.0	9.0	8.0	6.0
28	12.5	7.0	10.0	6.5	12.5	10.5	14.0	12.5	11.0	8.5	7.0	5.0
29	11.0	8.0	10.5	8.0	12.0	10.0	15.0	11.5	12.0	8.0	7.0	4.5
30	10.5	8.0	11.5	7.5	12.0	9.5	15.5	12.0	12.5	9.5	6.5	4.0
31	---	---	13.5	8.0	---	---	15.0	12.5	12.5	9.0	---	---
MONTH	13.0	.5	13.5	5.0	14.5	9.0	16.0	9.0	---	---	12.5	4.0

06720500 SOUTH PLATTE RIVER AT HENDERSON, CO

LOCATION.--Lat 39°55'19", long 104°52'00", in SE¼NE¼ sec.34, T.1 S., R.67 W., Adams County, Hydrologic Unit 10190003, on right bank 500 ft upstream from bridge on State Highway 22 and 0.2 mi northwest of Henderson.

DRAINAGE AREA.--4,713 mi².

PERIOD OF RECORD.--May 1926 to current year. Prior to October 1933, monthly discharge only, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1934-36(M). WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,003.12 ft above National Geodetic Vertical Datum of 1929. See WSP 1710 or 1730 for history of changes prior to June 1, 1960. June 1, 1960, to May 10, 1969, water-stage recorder at site 1,200 ft upstream at datum 2.00 ft, higher. May 11 to Oct. 2, 1969, nonrecording gage at site 500 ft downstream at present datum.

REMARKS.--Estimated daily discharges: Oct. 7-10, and Feb. 10-11. Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals, diversions for irrigation of about 253,000 acres, and return flow from irrigated areas. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--48 years (water years 1927-74), 366 ft³/s; 265,200 acre-ft/yr, prior to completion of Chatfield Dam; 11 years (water years 1976-86), 654 ft³/s; 473,800 acre-ft/yr, subsequent to completion of Chatfield Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft³/s, May 6, 1973, gage height, 11.67 ft, from rating curve extended above 7,200 ft³/s, partly on basis of flow-over-road measurement of peak flow; maximum gage height, 12.93 ft, June 17, 1965, site and datum then in use; minimum daily discharge, 4.4 ft³/s, Apr. 1, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,210 ft³/s at 2345 July 20, gage height, 7.39 ft; minimum daily, 176 ft³/s, Mar. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	478	745	523	462	383	259	225	246	489	1100	437	539
2	426	327	535	465	375	254	246	258	549	984	451	549
3	424	308	525	464	351	262	549	246	442	956	444	519
4	407	399	568	448	301	253	1050	231	553	1070	409	432
5	408	540	577	451	290	232	1440	229	1120	1070	397	378
6	403	529	572	472	301	216	1320	223	960	1100	368	370
7	400	546	578	487	291	222	1220	221	1120	1080	357	449
8	400	551	566	474	283	219	1080	343	1240	763	402	480
9	390	750	582	471	273	215	1270	331	1540	567	398	417
10	390	676	577	474	270	194	1380	223	2320	646	400	360
11	391	529	545	478	270	176	1290	197	1300	599	448	348
12	383	538	505	480	268	182	1480	194	924	510	463	352
13	345	537	480	483	280	200	1120	239	692	634	441	324
14	424	526	483	478	290	194	1080	243	811	597	456	294
15	350	582	520	512	298	194	1070	342	1060	616	457	269
16	335	576	535	495	290	185	713	1240	1010	667	449	230
17	331	553	525	491	289	219	597	706	1430	694	445	232
18	339	547	530	477	287	225	628	398	956	1080	450	258
19	335	567	518	472	283	194	624	347	1060	704	460	670
20	333	545	540	471	385	223	565	266	1260	1060	468	223
21	335	505	549	448	320	200	583	246	1220	1500	474	231
22	331	525	535	435	304	194	438	280	1060	725	530	242
23	327	535	520	425	291	219	421	280	858	934	1060	259
24	314	540	501	404	294	227	392	256	778	825	688	253
25	305	616	483	395	280	224	355	253	750	688	577	252
26	301	616	487	387	266	226	371	274	696	521	663	242
27	305	561	492	384	276	214	418	288	670	462	688	246
28	312	554	434	383	265	213	399	264	629	406	626	236
29	312	540	474	371	---	220	333	489	664	407	627	242
30	320	545	484	383	---	209	301	382	1140	439	594	252
31	424	---	482	383	---	211	---	311	---	401	535	---
TOTAL	11278	16410	16275	13902	8354	6675	22978	10046	29301	23805	15664	10148
MEAN	364	547	525	448	298	215	766	324	977	768	505	338
MAX	478	750	582	512	385	262	1480	1240	2320	1500	1060	670
MIN	301	308	474	371	265	176	225	194	442	401	357	223
AC-FT	22370	32550	32280	27570	16570	13240	45580	19930	58120	47220	31070	20130

CAL YR 1986 TOTAL 266218 MEAN 729 MAX 5830 MIN 229 AC-FT 528000
WTR YR 1987 TOTAL 184836 MEAN 506 MAX 2320 MIN 176 AC-FT 366600

06721500 NORTH ST VRAIN CREEK NEAR ALLENS PARK, CO.

LOCATION.--Lat. 40°13'08", long 105°31'40", in SW¼SE¼ sec.14, T.3 N., R.73 W., Boulder County, Hydrologic Unit 10190005, on left bank 64 ft upstream from bridge on Colorado Highway 7, 0.8 mi upstream from Horse Creek, and 1.7 mi north of Allens Park.

DRAINAGE AREA.--32.6 mi^2.

PERIOD OF RECORD.--October 1925 to September 1930. October 1986 to September 1987.

GAGE.--Water stage recorder. Elevation of gage is 8,280 ft above National Geodetic Vertical Datum of 1929, from topographic map. Oct. 1, 1926 to June 6, 1929, water-stage recorder at present site at different datum. June 6, 1929 to Sept. 30, 1930 at site 300 ft downstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 2-13, Nov. 20-29, Dec. 1-5, Dec. 8 to Jan. 19, 21-28, Jan. 30 to Feb. 2, Feb. 5-16, 18-24, Feb. 27 to Mar. 2, Mar. 6 to Apr. 4, Apr. 6-10, 13, 14, 21, 22. Records good except for estimated daily discharges, which are poor. Several observations of specific conductance and water temperatures were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years (water years 1926-30, 1987), 59.2 cfs; 42,890 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,000 ft^3/s (estimated) June 9, 1929, caused by failure of Copeland Lake dam 0.5 mi upstream; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 538 ft^3/s at 0100 June 10, gage height 5.87 ft; minimum daily, 6.4 ft^3/s, Feb. 8, 9, 13-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	17	12	7.8	7.0	6.7	7.1	99	111	138	69	27
2	32	17	12	7.8	7.0	6.8	7.1	108	120	115	65	28
3	35	17	12	7.8	6.8	6.9	7.1	77	113	101	60	27
4	36	17	11	7.8	6.9	6.8	7.1	60	122	95	52	26
5	34	17	11	7.8	6.6	7.0	6.8	52	140	89	48	26
6	33	17	11	7.8	6.6	7.0	6.9	55	158	82	45	25
7	33	17	11	7.8	6.6	7.0	7.0	66	197	78	46	24
8	33	17	11	7.8	6.4	7.0	7.2	85	225	78	49	23
9	34	16	10	7.8	6.4	7.0	7.4	114	463	76	48	22
10	35	16	10	7.8	6.5	7.0	7.6	132	413	71	45	21
11	37	15	10	7.8	6.5	7.0	8.0	136	255	70	42	20
12	39	15	10	7.8	6.5	7.0	8.0	137	194	88	41	20
13	46	15	10	7.6	6.4	7.0	8.2	194	169	90	41	19
14	43	15	10	7.6	6.4	7.0	8.8	218	176	76	37	19
15	32	14	10	7.6	6.4	7.0	9.5	247	161	71	34	28
16	31	14	10	7.6	6.4	7.0	12	313	168	69	36	29
17	29	14	10	7.6	6.4	7.0	16	318	155	68	34	33
18	28	15	9.6	7.6	6.5	7.1	20	234	127	66	32	31
19	28	15	9.4	7.6	6.5	7.1	26	214	121	64	29	26
20	32	14	9.8	7.5	6.5	7.1	30	177	118	63	28	25
21	33	14	9.6	13	6.6	7.1	26	161	114	60	28	23
22	29	14	9.4	39	6.6	7.1	24	140	109	61	29	23
23	26	13	9.2	7.4	6.6	7.1	29	131	106	63	33	22
24	24	13	9.0	7.4	6.6	7.1	43	131	103	63	42	21
25	23	13	8.8	7.4	6.7	7.1	54	120	99	60	40	19
26	22	12	8.6	7.4	6.7	7.1	57	111	97	61	40	18
27	21	12	8.4	7.4	6.6	7.1	57	99	96	65	37	17
28	20	12	8.2	7.4	6.6	7.1	58	88	93	66	34	17
29	20	12	8.2	7.4	---	7.1	78	82	107	60	32	16
30	19	12	8.2	7.6	---	7.1	85	81	118	61	29	16
31	19	---	8.0	7.2	---	7.1	---	87	---	64	27	---
TOTAL	938	441	305.4	272.9	184.3	217.6	728.8	4267	4748	2332	1252	691
MEAN	30.3	14.7	9.85	8.80	6.58	7.02	24.3	138	158	75.2	40.4	23.0
MAX	46	17	12	39	7.0	7.1	85	318	463	138	69	33
MIN	19	12	8.0	7.2	6.4	6.7	6.8	52	93	60	27	16
AC-FT	1860	875	606	541	366	432	1450	8460	9420	4630	2480	1370

WTR YR 1987 TOTAL 16378.0 MEAN 44.9 MAX 463 MIN 6.4 AC-FT 32490

06725450 ST VRAIN CREEK BELOW LONGMONT, CO.

LOCATION.--Lat 40°09'30", long 105°00'48", in NW¼NW¼ sec.9, T.2 N., R.68 W., Weld County, Hydrologic Unit 10190005, on left bank 1,750 ft upstream from mouth of Boulder Creek, 1.8 mi downstream from Spring Gulch, and 4.7 mi southeast of Longmont.

DRAINAGE AREA.--424 mi².

PERIOD OF RECORD.--October 1976 to September 1982, August 1984 to current year. Water-quality data available, October 1976 to February 1981.

GAGE.--Water-stage recorder. Elevation of gage is 4,852 ft, above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by storage reservoirs, diversions for irrigation, and return flow from irrigated areas. Several observations of specific conductance and temperature are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years, 120 ft³/s, 86,940 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,380 ft³/s, May 1, 1980, gage height, 6.37 ft; minimum daily, 22 ft³/s, Apr. 25, 1978, Apr. 3, 25, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 686 ft³/s at 1600 June 9, gage height, 4.17 ft; minimum daily, 41 ft³/s, Jan. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 THRU SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	106	92	71	51	51	85	387	248	223	156	93
2	75	85	89	75	49	52	98	466	134	235	159	80
3	100	87	83	49	47	57	91	404	96	154	151	82
4	93	87	85	49	47	59	87	377	93	118	146	81
5	71	83	99	49	47	65	83	365	98	126	136	77
6	69	83	89	50	49	69	81	384	109	114	131	78
7	69	104	88	51	49	65	85	380	104	94	133	83
8	69	96	83	47	47	80	89	329	118	102	150	85
9	74	77	81	44	49	91	79	315	532	104	156	79
10	73	77	75	49	49	75	52	329	485	100	170	75
11	95	73	80	46	50	69	72	343	422	73	174	79
12	83	79	87	45	47	71	97	278	232	104	178	87
13	83	73	79	47	44	81	93	290	202	111	181	79
14	83	81	81	44	50	93	87	328	216	118	179	81
15	77	77	81	41	47	87	95	315	193	153	157	106
16	79	67	84	49	44	104	111	281	165	133	147	85
17	77	65	81	47	49	102	128	300	117	136	128	93
18	75	82	73	57	47	100	136	297	136	138	98	113
19	75	85	75	44	56	109	138	295	104	143	89	114
20	83	83	73	49	59	106	189	254	98	143	85	85
21	83	83	69	42	51	107	176	263	96	148	83	81
22	83	79	69	45	42	111	187	293	85	151	89	83
23	83	78	78	54	47	109	195	328	83	162	106	81
24	83	79	85	47	52	114	210	369	93	178	115	71
25	83	81	75	52	51	130	222	369	93	175	107	71
26	77	83	77	64	52	146	238	336	85	165	111	67
27	79	85	81	72	56	128	238	336	75	154	106	67
28	79	84	79	61	56	102	286	298	75	148	98	65
29	79	83	79	58	---	100	261	254	165	143	85	52
30	77	91	83	51	---	93	267	244	273	143	78	61
31	81	---	74	51	---	100	---	263	---	141	77	---
TOTAL	2463	2476	2507	1600	1384	2826	4256	10070	5025	4330	3954	2425
MEAN	79.5	82.5	80.9	51.6	49.4	91.2	142	325	167	140	128	80.8
MAX	100	106	99	75	59	146	286	466	532	235	181	114
MIN	69	65	69	41	42	51	52	244	75	73	77	52
AC-FT	4890	4910	4970	3170	2750	5610	8440	19970	9970	8590	7840	4810

CAL YR 1986 TOTAL 53179 MEAN 146 MAX 884 MIN 32 AC-FT 105500
WTR YR 1987 TOTAL 43316 MEAN 119 MAX 532 MIN 41 AC-FT 85920

06726900 BUMMERS GULCH NEAR EL VADO, CO.

LOCATION.--Lat 40°00'42", long 105°20'53", in NE¼NW¼ sec.33, T.1 N., R.71 W., Boulder County , Hydrologic Unit 10190005, on left bank, 0.8 mi north of Highway 119 on Sugarloaf Road, 0.1 mi south of service road to Boulder Filtration Plant, 0.65 mi upstream from mouth and, 3.7 mi from Boulder County courthouse.

DRAINAGE AREA.--3.87 mi².

PERIOD OF RECORD.--July 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,270 ft above National Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7.8 ft³/s, Apr. 25, 1984, gage height, 2.65 ft; minimum daily, 0.02 ft³/s, Sept. 1, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6.9 ft³/s at 2345 June 8, gage height, 3.02 ft; minimum daily, 0.11 ft³/s, Oct. 1, 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	.30	.34	.28	.35	.52	.85	1.9	1.4	1.8	.61	.44
2	.11	.33	.32	.26	.36	.51	1.0	1.8	1.3	1.6	.56	.45
3	.17	.34	.30	.28	.35	.58	1.5	2.1	1.3	1.5	.55	.43
4	.17	.36	.31	.30	.35	.64	1.8	2.0	1.2	1.4	.55	.43
5	.15	.36	.31	.29	.36	.68	2.1	2.0	1.2	1.4	.50	.43
6	.15	.37	.30	.25	.38	.72	2.3	2.0	1.1	1.2	.49	.42
7	.15	.38	.28	.25	.38	.77	2.5	1.9	1.1	1.2	.57	.50
8	.14	.37	.28	.25	.38	.75	2.4	1.8	1.7	1.2	.60	.45
9	.21	.34	.29	.26	.39	.70	1.7	1.8	2.5	1.2	.62	.42
10	.19	.33	.30	.28	.40	.71	1.7	1.7	1.9	1.1	.62	.41
11	.24	.34	.32	.29	.40	.70	1.8	1.7	1.7	1.1	.53	.42
12	.24	.33	.29	.29	.40	.73	2.0	1.6	1.6	1.4	.55	.41
13	.28	.34	.28	.28	.41	.76	1.9	1.6	1.5	1.2	.54	.38
14	.26	.33	.28	.28	.43	.74	2.1	1.6	1.5	1.1	.52	.41
15	.25	.33	.28	.28	.42	.74	2.3	1.6	1.4	.99	.49	.44
16	.25	.34	.28	.28	.41	.74	[illegible]	1.6	1.4	.95	.48	.41
17	.24	.38	.28	.28	.40	.73	3.0	1.6	1.3	.93	.46	.45
18	.23	.38	.27	.29	.41	.76	4.0	1.6	1.4	.89	.45	.43
19	.23	.38	.28	.30	.27	.78	4.0	1.5	1.4	.85	.41	.39
20	.34	.37	.28	.32	.32	.74	3.9	1.6	1.3	.82	.39	.39
21	.34	.37	.28	.33	.37	.72	3.5	1.8	1.3	.81	.41	.37
22	.32	.35	.27	.33	.46	.74	3.3	1.6	1.2	.78	.50	.37
23	.31	.35	.28	.29	.48	.74	3.3	1.7	1.2	.71	.62	[illegible]
24	.31	.35	.28	.28	.47	.72	3.3	1.7	1.2	.68	.58	.34
25	.30	.33	.27	.28	.48	.69	3.1	1.6	1.2	.67	.52	.34
26	.28	.33	.26	.30	.48	.65	2.9	1.6	1.2	.68	.52	.34
27	.28	.33	.25	.32	.49	.66	2.7	1.5	1.2	.68	.53	.34
28	.28	.33	.26	.33	.50	.67	2.5	1.5	1.1	.66	.50	.36
29	.26	.33	.26	.34	---	.68	2.3	1.4	2.1	.66	.47	.36
30	.26	.34	.27	.35	---	.69	2.0	1.4	2.3	.64	.46	.35
31	.30	---	.28	.35	---	.76	---	1.3	---	.70	.45	---
TOTAL	7.35	10.41	8.83	9.09	11.30	21.72	74.65	52.1	43.2	31.50	16.05	12.04
MEAN	.24	.35	.28	.29	.40	.70	2.49	1.68	1.44	1.02	.52	.40
MAX	.34	.38	.34	.35	.50	.78	4.0	2.1	2.5	1.8	.62	.50
MIN	.11	.30	.25	.25	.27	.51	.85	1.3	1.1	.64	.39	.34
AC-FT	15	21	18	18	22	43	148	103	86	62	32	24

CAL YR 1986 TOTAL 136.84 MEAN .37 MAX 2.3 MIN .06 AC-FT 271
WTR YR 1987 TOTAL 298.24 MEAN .82 MAX 4.0 MIN .11 AC-FT 592

06727000 BOULDER CREEK NEAR ORODELL, CO

LOCATION.--Lat 40°00'23", long 105°19'49", in NE¼SW¼ sec.34, T.1 N., R.71 W., Boulder County, Hydrologic Unit 10190005, on left bank along State Highway 119, 0.7 mi southwest of old Orodell, 1.1 mi upstream from Fourmile Creek, and 2.9 mi southwest of courthouse in Boulder.

DRAINAGE AREA.--102 mi².

PERIOD OF RECORD.--August to October 1887, April to October 1888, October 1906 to November 1914, March 1916 to current year. Monthly discharge only for some periods, published in WSP 1310. Figures of daily discharge for Feb. 3-10, 17-25, 1912, published in WSP 326, have been found to be unreliable and should not be used. Published as North Boulder Creek, Colorado 1887-88 and as "at Orodell" March 1907 to December 1916.

REVISED RECORDS.--WSP 1310: 1941(M). WSP 1560: 1914(M). WSP 1730: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Elevation of gage is 5,826 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 1,1907, nonrecording gage, and Sept. 1, 1907, to May 11, 1917, water-stage recorder, at sites 1.1 mi downstream, just upstream from Fourmile Creek, at different datums.

REMARKS.--Estimated daily discharges: Apr. 2-7. Records good except for estimated daily discharges, which are poor. Flow regulated by Barker Reservoir, capacity, 11,500 acre-ft. Low flow during nonirrigation season regulated by Orodell powerplant 1.500 ft upstream from station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--78 years (water years 1907-14, 1917-86), 88.3 ft³/s; 63,970 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,500 ft³/s, June 6, 1921, gage height, 4.31 ft, from rating curve extended above 1,200 ft³/s; minimum daily, 1 ft³/s, Jan. 29, Feb. 1-3, 16-24, 1933.

EXTREMES OUTSIDE PERIOD OF RECORD.--Outstanding floods are known to have occcurred in June 1864, May 1876, June 1894, and June 1914, stages and discharges unknown.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 617 ft³/s at 0515 June 20, gage height, 3.56 ft; minimum daily, 7.0 ft³/s, Oct. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	20	22	31	24	19	40	69	132	328	83	64
2	33	19	23	36	29	29	40	68	149	316	76	67
3	39	19	32	32	30	30	45	69	149	293	85	71
4	22	20	32	37	28	18	50	73	154	340	85	64
5	18	24	26	29	13	21	65	74	148	443	68	66
6	22	23	28	29	39	25	75	68	161	493	64	63
7	18	19	30	28	36	24	90	67	362	401	62	71
8	34	18	33	40	34	26	106	61	476	318	62	85
9	29	18	29	32	32	28	113	72	467	272	68	59
10	31	17	31	32	31	27	111	73	429	252	60	58
11	30	17	37	34	34	27	115	66	323	220	52	56
12	31	32	33	34	28	32	109	46	302	211	49	41
13	24	19	30	34	26	27	116	56	346	220	41	36
14	16	18	15	28	25	35	110	57	363	228	54	41
15	20	23	47	24	24	30	103	59	378	223	50	41
16	21	20	32	36	19	28	104	82	398	219	32	36
17	16	21	35	25	24	29	94	84	465	225	22	32
18	12	24	32	36	27	34	86	85	481	237	28	53
19	11	21	12	34	25	29	95	81	539	211	27	32
20	7.8	21	48	29	30	36	89	74	556	200	32	30
21	7.2	22	35	29	28	28	87	80	500	186	46	30
22	7.0	20	32	22	29	29	84	85	436	170	60	34
23	16	26	37	24	28	28	85	86	468	216	75	33
24	18	20	32	28	30	33	89	82	443	207	77	29
25	17	23	40	23	23	30	92	84	404	178	69	32
26	17	21	30	21	29	25	95	94	398	144	68	22
27	17	19	33	9.1	24	23	78	119	429	134	68	20
28	16	20	30	22	22	22	87	122	379	115	59	23
29	17	18	32	40	---	20	67	145	373	92	50	22
30	19	17	42	24	---	35	76	126	371	72	59	24
31	18	---	37	18	---	40	---	115	---	70	64	---
TOTAL	637.0	619	987	900.1	771	867	2596	2522	10981	7234	1795	1335
MEAN	20.5	20.6	31.8	29.0	27.5	28.0	86.5	81.4	366	233	57.9	44.5
MAX	39	32	48	40	39	40	116	145	556	493	85	85
MIN	7.0	17	12	9.1	13	18	40	46	132	70	22	20
AC-FT	1260	1230	1960	1790	1530	1720	5150	5000	21780	14350	3560	2650

CAL YR 1985 TOTAL 22650.0 MEAN 62.1 MAX 410 MIN 7.0 AC-FT 44930
WTR YR 1986 TOTAL 31244.1 MEAN 85.6 MAX 556 MIN 7.0 AC-FT 61970

06727500 FOURMILE CREEK AT ORODELL, CO

LOCATION.--Lat 40°01'08", long 105°19'32", in NW¼SE¼ sec.27, T.1 N., R.71 W., Boulder County, Hydrologic Unit 10190005, on right bank 30 ft downstream from private bridge, 0.3 mi upstream from Highway 119 and mouth, 2.5 mi west of courthouse in Boulder.

DRAINAGE AREA.--24.1 mi².

PERIOD OF RECORD.--April 1947 to September 1953, April 1978 to September 1982 (peak stage and discharge only), July 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,760 ft above National Geodetic Vertical Datum of 1929, from topographic map. April 1, 1947 to September 30, 1953 water-stage recorder 500 feet downstream; April 1, 1978 to September 1982 crest-stage gage 200 feet downstream, at different datums.

REMARKS.--Estimated daily discharges: Dec. 8 to Jan. 25, Feb. 20 to Mar. 1, June 22-29 and July 3 to Aug. 4. Records good except for estimated daily discharges, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--10 years (water years 1947-53, 1983-87), 7.11 ft³/s, 5,150 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 256 ft³/s, June 6, 1949, gage height, 3.66 ft, site and datum then in use; no flow Sept. 1-7, 15-18, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 67 ft³/s at 0845 Apr. 24, gage height, 3.41 ft; minimum daily, 0.50 ft³/s, Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.96	1.9	1.5	1.4	1.2	1.9	6.1	51	14	8.5	1.8	.84
2	.88	1.6	1.4	1.4	1.3	2.0	7.1	48	13	6.7	1.8	.79
3	1.2	2.0	1.1	1.4	1.6	2.2	8.7	45	13	5.6	1.7	.75
4	1.4	2.1	1.2	1.4	1.2	2.8	10	39	13	5.0	1.5	.61
5	1.1	2.1	1.6	1.3	1.4	3.4	12	38	12	4.7	1.1	.69
6	1.0	2.2	1.8	1.3	1.8	4.7	12	44	12	4.5	.90	.76
7	1.0	2.6	1.7	1.3	1.7	5.9	13	53	11	4.2	1.1	.94
8	.98	2.5	1.8	1.3	1.4	7.2	14	54	13	4.2	1.7	1.1
9	1.3	2.3	1.8	1.3	1.5	6.5	15	49	21	4.0	1.8	.80
10	1.2	2.4	1.8	1.3	1.4	7.2	16	45	15	4.0	2.9	.70
11	1.6	2.7	1.8	1.2	1.3	6.2	16	42	13	4.0	1.5	.70
12	1.4	3.0	1.8	1.3	1.4	5.8	19	38	13	4.0	1.3	.74
13	1.4	3.5	1.8	1.3	1.4	5.9	17	35	12	3.9	1.4	.59
14	1.4	3.1	1.8	1.3	1.5	6.0	18	34	11	3.7	1.2	.54
15	1.3	2.0	1.8	1.3	1.5	5.9	22	32	11	3.8	.92	.78
16	1.2	2.1	1.7	1.3	1.4	6.1	29	31	9.3	3.6	.84	.76
17	1.3	2.1	1.6	1.3	1.4	5.7	27	30	8.4	3.4	.76	.82
18	1.0	2.5	1.5	1.3	1.3	5.8	32	28	8.2	3.3	.71	.95
19	1.1	2.5	1.4	1.3	1.3	5.9	35	27	8.2	3.2	.72	.78
20	2.2	2.6	1.4	1.3	1.3	5.9	37	27	7.3	3.0	.69	.71
21	2.3	2.5	1.4	1.3	1.3	5.8	35	27	6.7	2.9	.66	.64
22	1.9	2.3	1.4	1.3	1.3	5.9	38	24	6.2	2.8	1.0	.60
23	1.6	2.0	1.4	1.3	1.4	5.8	45	20	5.9	2.8	1.8	.56
24	1.6	1.9	1.4	1.3	1.5	5.6	59	19	5.6	2.7	2.5	.54
25	1.4	2.0	1.4	1.3	1.5	5.6	59	18	5.5	2.6	1.8	.51
26	1.4	1.8	1.4	1.3	1.6	5.3	57	18	5.3	2.5	1.5	.50
27	1.3	1.6	1.4	1.0	1.7	5.3	55	17	5.1	2.4	1.7	.54
28	1.3	1.7	1.4	1.3	1.8	5.1	51	16	4.9	2.2	1.6	.64
29	1.2	1.7	1.4	1.5	---	5.0	52	16	7.0	2.1	1.3	.69
30	1.1	1.7	1.4	1.5	---	6.2	54	16	12	2.0	1.1	.71
31	1.5	---	1.4	1.3	---	6.6	---	14	---	1.9	1.1	---
TOTAL	41.52	67.0	47.8	40.7	40.4	165.2	870.9	995	302.6	114.2	42.40	21.28
MEAN	1.34	2.23	1.54	1.31	1.44	5.33	29.0	32.1	10.1	3.68	1.37	.71
MAX	2.3	3.5	1.8	1.5	1.8	7.2	59	54	21	8.5	2.9	1.1
MIN	.88	1.6	1.1	1.0	1.2	1.9	6.1	14	4.9	1.9	.66	.50
AC-FT	82	133	95	81	80	328	1730	1970	600	227	84	42

CAL YR 1986 TOTAL 2911.25 MEAN 7.98 MAX 76 MIN .66 AC-FT 5770
WTR YR 1987 TOTAL 2749.00 MEAN 7.53 MAX 59 MIN .50 AC-FT 5450

06730200 BOULDER CREEK AT NORTH 75TH STREET NEAR BOULDER, CO.

LOCATION.--Lat 40°03'06", long 105°10'42", in NE¼SW¼ sec.13, T.2 N., R.68 W., Boulder County, Hydrologic Unit 1019005, 50 ft upstream from bridge on North 75th Street, 0.2 mi downstream from Boulder feeder ditch, 6 mi northeast of Boulder.

DRAINAGE AREA.--304 mi^2.

PERIOD OF RECORD.--October 1986 to September 1987.

GAGE.--Water-stage recorder, and concrete control. Elevation of gage is 5,106 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 21. Records good except for estimated daily discharges, which are poor. Flow is partially regulated by Barker Reservoir, and affected by Boulder feeder ditch and Boulder sewage treatment plant. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,080 ft^3/s, June 9, 1987, gage height 6.76 ft; minimum daily, 30 ft^3/s, Oct. 1-9, 13-20, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,080 ft^3/s at 0200 June 9, 1987, gage height, 6.76 ft; minimum daily, 30 ft^3/s, Oct. 1-9, 13-20, 1986.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	48	62	64	56	67	58	176	116	441	218	53
2	30	46	63	74	57	62	73	178	119	288	200	54
3	30	43	60	67	63	67	76	234	129	242	195	55
4	30	44	62	68	57	72	81	257	119	158	184	62
5	30	49	57	69	60	74	91	174	105	155	153	59
6	30	52	64	75	46	81	85	214	107	118	143	59
7	30	56	74	72	42	87	91	219	115	102	125	64
8	30	60	66	71	43	115	94	218	132	104	117	62
9	30	57	69	69	44	98	93	208	887	123	95	64
10	31	53	74	70	56	99	99.3	200	538	122	98	64
11	40	50	77	73	49	100	90	189	434	145	80	68
12	35	50	73	74	46	76	120	173	311	164	77	60
13	30	50	65	63	63	58	112	147	250	183	80	60
14	30	50	73	75	64	63	95	135	224	169	81	65
15	30	50	72	78	73	65	121	128	172	150	75	85
16	30	50	69	69	72	95	153	114	114	147	78	62
17	30	50	63	59	65	70	182	116	99	129	85	54
18	30	50	65	69	66	77	216	200	84	127	79	53
19	30	50	67	65	62	78	195	216	153	123	76	50
20	30	50	74	65	77	97	217	217	196	124	73	50
21	31	52	62	68	64	81	176	193	192	127	75	53
22	32	56	72	62	67	97	187	184	191	131	84	50
23	34	53	35	66	67	91	202	174	177	139	94	45
24	32	52	57	74	58	72	225	237	105	146	69	41
25	35	55	54	72	60	59	226	293	107	153	65	37
26	32	54	61	61	57	70	229	239	122	173	84	34
27	34	48	58	80	60	66	196	206	138	218	83	37
28	32	55	61	65	59	62	175	178	144	246	78	35
29	32	59	62	65	---	58	198	158	161	264	56	37
30	31	64	66	59	---	64	191	117	475	275	50	37
31	37	---	63	55	---	61	---	113	---	275	55	---
TOTAL	978	1556	2000	2116	1653	2382	4347.3	5805	6216	5461	3105	1609
MEAN	31.5	51.9	64.5	68.3	59.0	76.8	145	187	207	176	100	53.6
MAX	40	64	77	80	77	115	229	293	887	441	218	85
MIN	30	43	35	55	42	58	58	113	84	102	50	34
AC-FT	1940	3090	3970	4200	3280	4720	8620	11510	12330	10830	6160	3190

WTR YR 1987 TOTAL 37228.3 MEAN 102 MAX 887 MIN 30 AC-FT 73840

06730500 BOULDER CREEK AT MOUTH NEAR LONGMONT, CO

LOCATION.--Lat 40°09'08", long 105°00'52", in NW¼SW¼ sec.9, T.2 N., R.68 W., Weld County, Hydrologic Unit 10190005, on left bank 0.6 mi upstream from mouth, 1.0 mi downstream from State Highway 254, and 4.8 mi southeast of Longmont.

DRAINAGE AREA.--439 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1927 to September 1949, May 1951 to September 1955, October 1978 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,860 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 10, 1939, at site 0.8 mi upstream at different datum. June 10, 1939, to Sept. 30, 1949, at site 1.0 mi upstream, at different datum. May 1, 1951, to Sept. 30, 1955, at site 1.4 mi upstream, at different datum.

REMARKS.--Estimated daily discharges: Jan. 17-25, 27. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain, transbasin, and storage diversions, diversions for irrigation, water-treatment plants, and return flows from irrigated areas.

AVERAGE DISCHARGE.--35 years (water years, 1928-49, 1952-55, 1979-87), 66.7 ft^3/s; 48,320 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,410 ft^3/s, Sept. 3, 1938, gage height, 6.94 ft, site and datum then in use, from rating curve extended above 340 ft^3/s, on basis of slope-area measurement of peak flow; no flow at times many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 981 ft^3/s at 0930 June 9, gage height, 3.57 ft; minimum daily, 4.3 ft^3/s, June 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	96	91	89	76	90	87	209	122	295	12	38
2	21	88	88	80	81	93	95	181	130	159	9.5	28
3	23	81	83	74	79	93	100	178	110	85	9.9	28
4	44	88	83	76	78	101	113	207	67	60	10	34
5	50	94	85	79	75	102	105	196	57	45	9.4	39
6	50	100	86	83	74	112	99	236	25	18	8.8	29
7	50	109	87	80	60	113	97	198	24	11	9.8	15
8	44	100	85	81	59	130	101	178	40	8.3	8.0	24
9	52	91	89	80	59	144	104	159	568	12	7.3	13
10	49	87	98	93	58	127	110	151	508	11	7.5	21
11	96	89	114	85	67	126	106	140	423	15	7.3	20
12	73	89	90	87	59	120	142	116	256	14	8.4	11
13	47	87	89	77	59	102	148	70	191	15	9.1	9.7
14	47	90	92	85	83	92	132	64	153	11	8.3	13
15	45	87	82	86	84	84	146	44	96	8.6	7.7	55
16	52	84	87	90	83	108	157	16	28	9.9	7.3	34
17	53	88	81	90	83	115	173	4.7	4.3	10	7.6	29
18	49	92	82	90	82	105	194	36	10	11	7.7	30
19	47	85	89	90	85	123	218	63	23	11	7.7	26
20	55	85	85	90	94	129	244	124	39	9.9	9.4	19
21	56	85	83	94	89	116	222	130	20	9.8	11	22
22	58	84	87	94	87	116	221	139	17	9.5	10	33
23	63	83	80	94	89	110	226	128	35	11	11	30
24	58	80	88	94	90	101	264	241	9.0	12	10	24
25	72	80	78	94	83	88	330	286	5.3	10	9.4	24
26	58	82	80	95	84	88	314	271	9.4	7.0	18	33
27	71	79	78	94	92	89	248	267	13	8.3	28	34
28	61	81	79	98	86	85	222	216	11	7.7	30	42
29	61	76	77	89	---	81	214	181	150	8.1	45	41
30	57	86	82	84	---	83	224	134	384	8.7	44	41
31	70	---	80	79	---	81	---	120	---	9.6	44	---
TOTAL	1641.6	2626	2658	2694	2178	3247	5156	4683.7	3528.0	921.4	433.1	839.7
MEAN	53.0	87.5	85.7	86.9	77.8	105	172	151	118	29.7	14.0	28.0
MAX	96	109	114	98	94	144	330	286	568	295	45	55
MIN	9.6	76	77	74	58	81	87	4.7	4.3	7.0	7.3	9.7
AC-FT	3260	5210	5270	5340	4320	6440	10230	9290	7000	1830	859	1670

CAL YR 1986 TOTAL 28531.0 MEAN 78.2 MAX 456 MIN 3.0 AC-FT 56610
WTR YR 1987 TOTAL 30606.4 MEAN 83.9 MAX 568 MIN 4.3 AC-FT 60710

06730500 BOULDER CREEK AT MOUTH NEAR LONGMONT, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)
OCT 23...	1400	55	850	8.8	12.0	11.8	160	K83	270
NOV 20...	1215	71	650	8.3	7.5	--	K13	K31	220
DEC 18...	1130	69	480	7.8	1.0	--	210	100	140
JAN 14...	1415	70	540	8.8	4.5	14.2	--	K31	160
MAR 04...	1430	83	518	8.9	9.5	13.8	160	260	190
APR 01...	1345	80	580	9.2	11.0	14.2	K<10	K60	210
MAY 04...	1000	198	432	8.1	8.0	9.3	210	720	140
JUN 04...	1345	68	470	8.9	21.0	11.2	K73	490	160
JUL 02...	1035	141	410	8.2	18.0	7.6	--	--	140
20...	1025	9.5	1030	8.6	18.5	11.2	500	210	400
AUG 24...	1045	10	1150	8.6	18.0	12.8	160	650	440

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT 23...	50	36	69	2	6.7	192	160	36
NOV 20...	45	25	46	1	3.8	146	120	24
DEC 18...	28	18	34	1	3.9	99	76	20
JAN 14...	31	20	42	1	3.6	129	88	15
MAR 04...	39	23	49	2	4.1	--	130	25
APR 01...	43	26	56	2	4.2	158	130	27
MAY 04...	31	16	32	1	3.0	114	83	15
JUN 04...	33	19	35	1	4.3	--	94	22
JUL 02...	31	16	27	1	2.8	111	76	13
20...	64	59	75	2	3.2	251	320	20
AUG 24...	67	67	88	2	4.1	284	330	23

K BASED ON NON-IDEAL COLONY COUNT.

06730500 BOULDER CREEK AT MOUTH NEAR LONGMONT, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHOROUS DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
OCT									
23...	1.0	6.2	480	0.65	71.3	3.60	--	37	10
NOV									
20...	0.70	7.8	360	0.49	68.8	2.20	--	41	28
DEC									
18...	0.60	6.8	247	0.34	45.9	1.60	0.75	140	52
JAN									
14...	0.70	6.5	284	0.39	54.0	1.70	0.79	150	44
MAR									
04...	0.80	6.4	--	--	--	2.10	0.89	64	30
APR									
01...	0.80	6.0	388	0.53	83.4	--	0.78	39	49
MAY									
04...	0.50	8.2	257	0.35	137	1.40	0.51	57	26
JUN									
04...	0.50	7.2	--	--	--	2.00	0.51	52	25
JUL									
02...	0.50	8.1	241	0.33	91.6	1.20	0.23	44	26
20...	1.1	5.0	698	0.95	17.9	1.10	0.19	17	19
AUG									
24...	1.2	9.0	760	1.03	20.7	2.00	0.17	41	38

06731000 ST. VRAIN CREEK AT MOUTH, NEAR PLATTEVILLE, CO

LOCATION.--Lat 40°15'29", long 104°52'45", in SE¼NW¼ sec.3, T.3 N., R.67 W., Weld County, Hydrologic Unit 10190005, on right bank 140 ft downstream from bridge on county road, 1.3 mi upstream from mouth, and 4.2 mi northwest of Platteville.

DRAINAGE AREA.--976 mi².

PERIOD OF RECORD.--July 1904 to December 1906, April to December 1915, March 1927 to current year. Prior to October 1933, monthly discharge only, published in WSP 1310.

REVISED RECORDS.--WSP 956: 1938(M). WSP 1440: 1934, 1935(M). WSP 1730: 1958, drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,740 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1730 for history of changes prior to Apr. 25, 1960.

REMARKS.--Estimated daily discharges: Water year 1986, Dec. 3, 7, 13-16, 18, 20-21, 24-25, Dec. 27 to Jan. 2, and Jan. 4-9. Water year 1987, Feb. 12-13. Records good. Diversions upstream from station for irrigation of about 177,000 acres. Flow partly regulated by many small reservoirs upstream from station.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--61 years (water years 1905-6, 1928-86), 217 ft³/s; 157,200 acre-ft/yr; 62 years (water years 1905-6, 1928-87), 217 ft³/s; 157,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,300 ft³/s, Sept. 3, 1938, gage height, 8.93 ft, site and datum then in use, from rating curve extended above 4,700 ft³/s; minimum daily, 12 ft³/s, Apr. 23, 1935.

EXTREMES FOR WATER YEAR 1986.--Maximum discharge, 2,260 ft³/s at 1515 June 10, gage height, 5.39 ft; minimum daily, 97 ft³/s, Mar. 30.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,260 ft³/s at 1630 June 9, gage height, 4.63 ft; minimum daily, 101 ft³/s, Jan. 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	228	134	150	195	189	145	136	249	302	407	276	258
2	223	122	156	195	193	143	134	236	330	383	275	272
3	204	125	170	187	187	141	286	246	342	344	299	292
4	184	124	213	180	185	145	335	237	406	310	299	245
5	173	125	221	170	183	141	363	226	532	474	304	241
6	160	125	218	200	183	142	412	248	623	655	290	236
7	162	127	210	195	173	139	451	294	921	668	273	252
8	167	142	185	180	173	136	483	275	1350	526	271	281
9	185	160	186	190	163	136	605	258	1710	420	292	284
10	175	174	191	191	153	136	562	196	2160	358	300	259
11	187	177	193	187	159	141	493	177	1600	350	299	240
12	187	179	122	189	157	145	461	169	1150	320	282	231
13	179	194	180	185	155	149	417	167	1150	349	279	209
14	185	190	210	181	155	145	385	164	1290	364	264	201
15	182	191	230	185	175	159	374	160	1420	351	267	189
16	169	193	250	189	173	161	352	304	1370	355	276	181
17	167	195	249	194	161	149	341	432	1270	351	267	186
18	159	189	260	183	179	147	341	415	1260	386	250	181
19	141	193	261	181	167	145	309	349	1250	381	239	185
20	134	192	230	187	166	147	287	327	1400	352	246	179
21	139	200	270	193	159	145	282	329	1180	412	274	169
22	137	195	274	185	153	145	266	365	988	353	281	166
23	112	178	250	183	151	145	264	380	794	330	314	181
24	123	177	220	177	147	143	282	346	627	365	346	181
25	135	173	195	169	147	136	286	293	502	364	310	177
26	129	187	189	159	149	134	298	297	387	383	305	183
27	125	189	190	163	149	132	319	292	414	367	297	163
28	123	179	190	167	147	136	301	313	362	358	278	162
29	122	175	190	181	---	119	294	347	290	329	272	149
30	124	165	195	183	---	97	265	341	376	289	265	158
31	132	---	195	179	---	115	---	300	---	284	251	---
TOTAL	4952	5069	6443	5683	4631	4339	10384	8732	27756	11938	8741	6291
MEAN	160	169	208	183	165	140	346	282	925	385	282	210
MAX	228	200	274	200	193	161	605	432	2160	668	346	292
MIN	112	122	122	159	147	97	134	160	290	284	239	149
AC-FT	9820	10050	12780	11270	9190	8610	20600	17320	55050	23680	17340	12480

CAL YR 1985 TOTAL 82037 MEAN 225 MAX 848 MIN 112 AC-FT 162700
WTR YR 1986 TOTAL 104959 MEAN 288 MAX 2160 MIN 97 AC-FT 208200

06731000 ST. VRAIN CREEK AT MOUTH, NEAR PLATTEVILLE, CO.--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	151	248	210	157	165	194	208	554	454	582	204	203
2	151	240	198	157	169	194	222	625	369	468	218	194
3	170	225	191	148	166	193	229	631	307	370	203	196
4	209	230	186	143	165	202	234	610	250	289	211	190
5	179	225	205	145	160	209	235	590	233	265	204	195
6	171	222	207	154	161	216	231	619	223	231	170	182
7	165	241	201	154	153	218	227	630	216	181	179	180
8	154	243	197	150	151	232	239	585	229	170	194	184
9	162	223	200	139	148	270	236	556	915	171	215	174
10	173	206	191	140	150	245	215	538	1130	162	243	164
11	215	206	204	145	157	239	221	536	961	171	220	157
12	223	212	211	142	160	234	257	481	662	209	224	163
13	195	211	196	137	165	222	300	422	517	250	230	158
14	188	222	195	139	170	232	264	438	474	227	250	156
15	187	212	195	132	175	221	278	410	427	230	228	211
16	180	200	202	118	170	246	315	366	342	216	217	203
17	173	200	194	101	173	272	338	347	268	211	191	194
18	174	218	189	126	171	249	364	386	266	210	160	203
19	164	216	194	144	180	265	394	414	247	209	168	194
20	175	220	193	119	193	273	440	482	240	200	158	177
21	185	211	187	118	185	263	441	479	229	198	162	170
22	198	210	183	126	176	261	446	514	199	191	180	172
23	189	206	180	141	183	256	461	532	181	182	189	163
24	194	197	188	158	196	245	488	627	180	181	226	153
25	199	204	171	176	188	236	540	775	154	177	228	140
26	185	204	166	192	185	253	554	694	153	169	242	142
27	189	194	166	229	183	254	508	675	160	169	252	139
28	189	194	172	197	185	227	526	617	159	176	238	146
29	185	190	163	184	---	210	505	526	249	174	236	145
30	176	208	170	176	---	210	508	476	716	173	220	146
31	182	---	165	175	---	214	---	465	---	173	211	---
TOTAL	5630	6438	5870	4662	4783	7255	10424	16600	11110	6985	6471	5194
MEAN	182	215	189	150	171	234	347	535	370	225	209	173
MAX	223	248	211	229	196	273	554	775	1130	582	252	211
MIN	151	190	163	101	148	193	208	347	153	162	158	139
AC-FT	11170	12770	11640	9250	9490	14390	20680	32930	22040	13850	12840	10300

CAL YR 1986 TOTAL 106433 MEAN 292 MAX 2160 MIN 97 AC-FT 211100
WTR YR 1987 TOTAL 91422 MEAN 250 MAX 1130 MIN 101 AC-FT 181300

06734900 OLYMPUS TUNNEL AT LAKE ESTES, CO

LOCATION.--Lat 40°22'30", long 105°29'13", in SE¼NW¼ sec.29, T.5 N., R.72 W., Larimer County, Hydrologic Unit 10190006, at tunnel entrance at south end of Olympus Dam on Lake Estes, 1.9 mi east of Estes Park.

PERIOD OF RECORD.--September 1970 to current year.

REMARKS.--Tunnel is part of Colorado-Big Thompson project. Field data collected prior to 1974 water year available in district office. Records of discharge are estimated values. A complete taxonomic identification with cell counts for phytoplankton available in district office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 28...	1230	16	<50	6.9	7.5	9.2	--	--	13	3.9
NOV 18...	1230	403	<50	8.3	5.0	9.8	--	--	15	4.4
DEC 30...	0930	527	55	7.7	3.0	11.6	--	--	20	6.2
JAN 21...	0945	459	56	7.6	2.0	8.9	--	--	21	6.4
FEB 26...	1340	199	53	8.3	3.0	8.6	--	--	23	7.0
MAR 19...	1320	423	52	7.1	5.0	9.3	--	--	22	6.6
APR 16...	0855	463	50	7.7	7.0	9.0	K13	K<1	20	6.0
MAY 14...	0900	52	38	7.6	10.0	8.2	180	K3	14	4.2
JUN 11...	0830	461	24	7.2	12.0	7.9	310	38	8	2.1
JUL 16...	0830	463	27	7.7	16.0	7.2	86	K<1	10	3.0
AUG 20...	0950	468	43	7.2	16.5	8.0	--	63	16	4.9
SEP 24...	0930	2.4	44	7.1	12.0	8.0	56	K4	16	4.9

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
OCT 28...	0.80	1.5	0.2	0.7	14	4.5	0.4	0.1	4.1	24	0.03
NOV 18...	0.90	1.8	0.2	0.7	16	5.2	0.6	0.1	4.6	28	0.04
DEC 30...	1.2	1.8	0.2	0.7	21	5.0	0.2	0.2	4.3	32	0.04
JAN 21...	1.2	1.9	0.2	0.6	22	5.9	0.4	0.1	4.5	34	0.05
FEB 26...	1.3	1.8	0.2	0.9	23	4.8	0.6	0.2	4.5	35	0.05
MAR 19...	1.3	2.2	0.2	0.8	23	4.4	0.7	0.2	4.7	35	0.05
APR 16...	1.2	2.0	0.2	0.8	21	4.3	0.2	0.2	4.8	32	0.04
MAY 14...	0.88	1.7	0.2	0.6	15	5.3	0.6	0.1	4.9	27	0.04
JUN 11...	0.55	1.0	0.2	<0.1	8.0	7.4	0.5	0.1	4.1	21	0.03
JUL 16...	0.63	1.2	0.2	0.4	11	6.6	0.3	0.1	3.3	22	0.03
AUG 20...	0.95	1.8	0.2	0.6	18	4.2	0.4	0.2	3.2	27	0.04
SEP 24...	1.0	2.1	0.2	0.7	17	4.3	2.1	0.2	4.2	30	0.04

K BASED ON NON-IDEAL COLONY COUNT.

06734900 OLYMPUS TUNNEL AT LAKE ESTES, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALGAL GROWTH POTEN- TIAL, BOTTLE TEST (MG/L)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)
OCT										
28...	35	<0.01	<0.10	<0.01	0.06	0.02	68	6	--	--
NOV										
18...	30	<0.01	<0.10	<0.01	0.02	0.01	110	24	--	--
DEC										
30...	46	<0.01	<0.10	0.02	0.02	0.01	58	4	--	--
JAN										
21...	42	<0.01	<0.10	0.01	0.02	0.02	28	3	--	--
FEB										
26...	19	<0.01	<0.10	0.01	0.03	<0.01	51	3	--	--
MAR										
19...	40	<0.01	<0.10	<0.01	0.02	0.01	63	5	--	--
APR										
16...	40	<0.01	<0.10	<0.01	0.02	0.01	58	7	82	4300
MAY										
14...	40	<0.01	<0.10	0.02	0.02	0.01	140	6	75	2000
JUN										
11...	31	<0.01	<0.10	0.03	0.02	0.01	96	10	70	1100
JUL										
16...	28	<0.01	<0.10	0.02	0.02	<0.01	78	4	51	3200
AUG										
20...	34	<0.01	<0.10	0.03	0.02	0.01	53	1	58	7600
SEP										
24...	44	<0.01	<0.10	0.04	0.01	<0.01	62	2	61	9200

06735500 BIG THOMPSON RIVER NEAR ESTES PARK, CO

LOCATION.--Lat 40°22'35", long 105°29'06", in NE¼NE¼ sec.29, T.5 N., R.72 W., Larimer County, Hydrologic Unit 10190006, on right bank 100 ft upstream from Dry Gulch, 600 ft downstream from Olympus Dam, and 2.0 mi east of Estes Park.

DRAINAGE AREA.--155 mi². Area at site used Jan. 29, 1934, to Mar. 21, 1951, 162 mi².

PERIOD OF RECORD.--July 1930 to current year. Prior to October 1933, monthly discharges only, published in WSP 1310. Published as Thompson River near Estes Park 1934-47.

REVISED RECORDS.--WDR CO-76-1: Drainage area.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 7,422.5 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to Jan. 29, 1934, nonrecording gage on highway bridge 1.5 mi downstream at different datum. Jan. 29, 1934, to Mar. 21, 1951, water-stage recorder at site 0.4 mi downstream at datum 10.5 ft, lower.

REMARKS.--No estimated daily discharges. Records good. Low flow regulated by Lake Estes since Nov. 30, 1948. Diversion from Colorado River basin to Big Thompson River basin upstream from station through Alva B. Adams tunnel began Aug. 10, 1947 (see station 09013000 in Volume 2 for diversion during current year); since Apr. 15, 1953, this imported water has been diverted from Lake Estes through Olympus tunnel bypassing this station. Since May 17, 1955, part of the natural flow of Big Thompson River (249,200 during current year) has also been diverted through Olympus tunnel and returned to the river downstream from the station at mouth of canyon, near Drake. Small power developments and small diversions for irrigation and municipal use upstream from station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 2,800 ft³/s, June 20, 1933, gage height, 4.0 ft, site and datum then in use, from rating curve extended above 460 ft³/s; no flow, Aug. 1 to Sept. 30, 1976 (all flow into Lake Estes diverted through Olympus tunnel after flood of July 31, 1976).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 775 ft³/s at 2030 May 12, gage height, 5.03 ft; minimum daily, 9.8, ft³/s, Feb. 27 to Mar. 2, Mar. 5, 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	38	43	14	13	9.8	28	704	129	124	124	64
2	49	36	43	14	12	9.8	28	455	123	124	125	63
3	50	43	43	14	12	11	28	473	124	125	124	64
4	50	44	44	14	12	11	28	674	125	124	123	62
5	48	42	43	14	12	9.8	28	723	123	125	124	62
6	50	38	43	14	13	10	125	711	125	125	130	63
7	59	37	43	14	13	9.8	128	711	124	127	277	60
8	62	40	43	15	13	10	129	676	124	125	425	59
9	62	36	43	14	13	10	129	674	389	125	433	58
10	63	33	43	14	13	10	130	735	298	123	421	52
11	64	33	43	14	13	10	130	760	297	123	432	50
12	64	32	43	14	13	10	129	758	123	123	342	49
13	58	32	29	14	11	10	127	628	123	125	332	49
14	53	32	28	14	11	15	129	564	123	125	318	45
15	52	39	29	14	11	18	130	572	123	123	95	53
16	51	32	28	15	11	16	129	473	123	123	96	75
17	52	32	28	14	11	15	129	544	123	123	86	68
18	52	33	28	14	11	20	142	533	124	123	82	69
19	53	37	28	13	10	23	157	531	124	124	74	63
20	52	36	28	14	10	17	168	463	128	123	70	58
21	64	36	28	13	10	18	184	297	128	124	67	52
22	64	36	28	13	11	20	178	353	125	123	66	50
23	64	37	27	13	11	16	181	221	125	124	72	47
24	64	37	28	13	10	19	204	153	123	124	90	46
25	60	36	15	12	10	21	330	140	123	123	97	43
26	56	37	14	13	10	18	457	127	123	123	90	40
27	53	36	15	12	9.8	17	475	128	123	123	92	40
28	52	36	15	12	9.8	27	612	127	122	123	85	40
29	49	44	14	12	---	28	688	125	122	123	76	36
30	43	43	14	13	---	28	720	125	124	124	71	36
31	36	---	14	13	---	28	---	128	---	123	67	---
TOTAL	1697	1103	955	420	319.6	495.2	6188	14286	4333	3839	5105	1596
MEAN	54.7	36.8	30.8	13.5	11.4	16.0	206	461	144	124	165	53.2
MAX	64	44	44	15	13	28	720	760	389	127	433	75
MIN	36	32	14	12	9.8	9.8	28	125	122	123	66	36
AC-FT	3370	2190	1890	833	634	982	12270	28340	8590	7610	10130	3170

CAL YR 1986 TOTAL 72360.8 MEAN 198 MAX 1000 MIN 7.1 AC-FT 143500
WTR YR 1987 TOTAL 40334.8 MEAN 111 MAX 760 MIN 9.8 AC-FT 80010

06737500 HORSETOOTH RESERVOIR NEAR FORT COLLINS, CO

LOCATION.--Lat 40°36'00", long 105°10'06", in NW¼SW¼ sec.6, T.7 N., R.69 W., Larimer County, Hydrologic Unit 10190007, on right bank near abutment of Horsetooth Dam on tributaries to Cache la Poudre River, 4.8 mi west of city hall in Fort Collins. Water-quality sampling at three sites in reservoir.

RESERVOIR ELEVATIONS AND CONTENTS RECORDS

PERIOD OF RECORD.--April 1951 to current year.

GAGE.--Nonrecording gage read at irregular intervals from 1 to 10 days. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by an earth and rockfill dike and dams closing openings in subsequent valleys between hogbacks; storage began Jan. 10, 1951; dams completed July 21, 1949. Usable capacity, 143,500 acre-ft above elevations 5,320 ft, invert of channel from Spring Canyon Dam, 5,310 ft, invert of channel from Dixon Canyon Dam, 5,270 ft, trashrack sill of outlet at Soldier Canyon Dam, and below maximum water-surface elevation, 5,430 ft, 6 ft below crest of Satanka Dike. Dead storage, 7,003 acre-ft. Figures given represent usable contents. Water is diverted from Colorado River basin through Alva B. Adams tunnel for supplemental irrigation supply to Cache la Poudre River.

COOPERATION.--Records provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 141,600 acre-ft July 2, 1970, elevation, 5,429.02 ft; minimum observed, 9 acre-ft Nov. 16-30, 1977,elevation, 5,270.25 ft; no storage prior to Apr. 18, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 136,000 acre-ft, Apr. 21, 22, 24, elevation, 5,423.12 ft; minimum, observed, 83,020 acre-ft, Oct. 1, elevation, 5,392.46 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	5,392.24	82,680	-
Oct. 31	5,395.84	88,260	+5,580
Nov. 30	5,396.18	88,790	+530
Dec. 31	5,402.18	98,480	+9,690
CAL YR 1986	-	-	+6,530
Jan. 31	5,406.34	105,500	+7,020
Feb. 28	5,415.38	121,500	+16,000
Mar. 31	5,422.26	134,400	+12,900
Apr. 30	5,422.00	133,900	-500
May 31	5,418.08	126,500	-7,400
June 30	5,418.40	127,100	+600
July 31	5,405.38	103,800	-23,300
Aug. 31	5,399.78	94,550	-9,250
Sept. 30	5,396.08	88,630	-5,920
WTR YR 1987			+5,950

NOTE.--Change in contents from Aug. 31 to Sept. 30 1986 corrected to -3.260 acre-feet from +3,260 acre-feet; water year figure for 1986 for change in contents correct.

06737500 HORSETOOTH RESERVOIR NEAR FORT COLLINS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1969 to current year.

REMARKS.--Samples collected at various depths near north end of reservoir near Soldier Canyon Dam. Reservoir storage represents usable contents. A complete taxonomic identification with cell counts for phytoplankton available in district office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
JUL						
21...	1000	0.1	50	7.9	22.0	7.2
21...	1001	5.0	67	7.5	21.5	7.2
21...	1002	10.0	66	7.5	21.5	7.1
21...	1003	20.0	59	7.3	18.0	6.3
21...	1004	25.0	58	7.2	17.5	6.1
21...	1005	30.0	58	7.1	16.5	5.9
21...	1006	40.0	57	6.9	12.5	6.4
21...	1007	50.0	57	6.8	10.0	7.1
21...	1008	60.0	57	6.8	8.5	7.4
21...	1009	70.0	55	6.8	8.0	7.5
21...	1010	75.0	55	6.8	8.0	7.5
21...	1011	80.0	54	6.8	8.0	7.6
21...	1012	90.0	53	6.8	7.5	7.6
21...	1013	100	52	6.8	7.5	7.7
21...	1014	110	51	6.8	7.0	7.7
21...	1015	120	50	6.8	6.5	7.7
21...	1016	125	49	6.8	6.5	7.7
21...	1017	130	49	6.8	6.5	7.7
21...	1018	140	48	6.8	6.5	7.6
21...	1019	150	50	6.7	6.5	7.5
SEP						
09...	1125	0.1	74	7.5	19.5	6.9
09...	1126	5.0	74	7.5	19.0	6.9
09...	1127	10.0	73	7.4	19.0	6.8
09...	1128	20.0	71	7.2	18.5	6.5
09...	1129	25.0	70	7.1	18.5	6.2
09...	1130	30.0	69	6.9	18.0	5.9
09...	1131	40.0	66	6.9	17.5	5.5
09...	1132	50.0	63	7.3	17.0	4.9
09...	1133	60.0	60	7.3	15.0	4.7
09...	1134	70.0	57	7.2	13.0	5.1
09...	1135	75.0	56	7.1	12.0	5.4
09...	1136	80.0	56	7.1	11.0	5.6
09...	1137	90.0	55	7.0	10.5	5.8
09...	1138	100	54	6.9	9.0	5.9
09...	1139	110	52	6.9	8.5	5.9
09...	1140	120	51	6.9	8.5	5.8
09...	1141	125	51	6.8	8.0	5.7
09...	1142	130	51	6.8	8.0	5.6
09...	1143	140	50	6.8	8.0	5.6

DATE	TIME	SAMPLING DEPTH (FEET)	TRANSPARENCY (SECCHI DISK) (IN)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ALGAL GROWTH POTENTIAL, BOTTLE TEST (MG/L)	PHYTOPLANKTON, TOTAL (CELLS PER ML)
JUL												
21...	1040	0.1	43.0	K<1	K<1	36	<0.01	<0.10	<0.01	0.01	58	38400
21...	1055	150	--	--	--	37	<0.01	0.12	<0.01	0.02	--	--
SEPT												
09...	1125	0.1	74.0	--	--	--	--	--	--	--	--	--

K BASED ON NON-IDEAL COLONY COUNT.

403317105090000 HORSETOOTH RESERVOIR NEAR FORT COLLINS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1983 to current year.

REMARKS.--Samples collected at various depths near center of reservoir, near Dixon Canyon Dam. A complete taxonomic identification with cell counts for phytoplankton available in district office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
JUL						
21...	1300	0.1	64	7.3	22.5	7.1
21...	1301	5.0	65	7.3	21.0	7.1
21...	1302	10.0	64	7.3	21.0	7.1
21...	1303	20.0	62	7.1	19.5	6.6
21...	1304	25.0	58	6.9	19.0	6.5
21...	1305	30.0	54	6.9	17.5	6.4
21...	1306	40.0	57	6.7	12.5	6.4
21...	1307	50.0	58	6.7	9.5	7.1
21...	1308	60.0	57	6.6	8.5	7.3
21...	1309	70.0	56	6.6	8.0	7.3
21...	1310	75.0	55	6.6	8.0	7.4
21...	1311	80.0	55	6.6	7.5	7.4
21...	1312	90.0	53	6.6	7.5	7.5
21...	1313	100	52	6.6	7.5	7.4
21...	1314	110	51	6.6	7.0	7.5
21...	1315	120	50	6.6	7.0	7.4
21...	1316	125	49	6.7	7.0	7.4
21...	1317	130	49	6.7	7.0	7.4
21...	1318	140	47	6.7	7.0	7.3
21...	1319	150	47	6.7	7.0	7.3
SEP						
09...	1240	0.1	68	7.9	19.0	6.9
09...	1241	5.0	68	7.8	19.0	7.0
09...	1242	10.0	68	7.6	18.5	6.9
09...	1243	20.0	66	7.3	18.5	6.7
09...	1244	25.0	66	7.1	18.5	6.6
09...	1245	30.0	65	6.9	18.5	6.5
09...	1246	40.0	64	6.8	18.0	6.4
09...	1247	50.0	61	7.1	16.5	5.7
09...	1248	60.0	59	7.2	15.0	4.9
09...	1249	70.0	57	7.2	11.5	5.5
09...	1250	75.0	57	7.2	10.5	5.6
09...	1251	80.0	56	7.1	9.5	6.0
09...	1252	90.0	56	7.1	8.0	6.3
09...	1253	100	54	7.1	7.5	6.3
09...	1254	110	54	7.0	7.5	6.2
09...	1255	120	52	7.0	7.5	6.1
09...	1256	125	52	7.0	7.5	6.0
09...	1257	130	52	7.1	7.0	6.0
09...	1258	135	51	7.0	7.0	5.8

DATE	TIME	SAMPLING DEPTH (FEET)	TRANSPARENCY (SECCHI DISK) (IN)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ALGAL GROWTH POTENTIAL, BOTTLE TEST (MG/L)	PHYTOPLANKTON, TOTAL (CELLS PER ML)
JUL												
21...	1335	0.1	47.0	K2	K<1	38	<0.01	<0.10	<0.01	0.01	48	25000
21...	1350	150	--	--	--	39	<0.01	0.10	<0.01	0.02	--	--
SEP												
09...	1230	0.1	86.0	K4	K1	37	<0.01	<0.10	0.02	0.01	45	17800

K BASED ON NON-IDEAL COLONY COUNT.

403147105083800 HORSETOOTH RESERVOIR NEAR FORT COLLINS, CO--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--May 1983 to current year.

REMARKS.--Samples collected at various depths near south end of reservoir, near Spring Canyon Dam. A complete taxonomic identification with cell counts for phytoplankton available in district office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
JUL						
21...	1130	0.1	63	7.4	21.5	7.0
21...	1131	5.0	63	7.4	20.5	7.2
21...	1132	10.0	62	7.4	20.0	7.0
21...	1133	20.0	60	7.3	19.5	6.8
21...	1134	25.0	61	7.2	19.5	6.6
21...	1135	30.0	56	7.2	18.5	6.5
21...	1136	40.0	56	7.0	13.0	6.3
21...	1137	50.0	56	6.8	10.5	6.7
21...	1138	60.0	56	6.8	8.5	7.2
21...	1139	70.0	56	6.7	7.5	7.3
21...	1140	75.0	55	6.7	7.5	7.3
21...	1141	80.0	54	6.7	7.5	7.3
21...	1142	90.0	53	6.7	7.0	7.3
21...	1143	100	52	6.7	7.0	7.3
21...	1144	110	51	6.7	7.0	7.2
21...	1145	120	50	6.7	7.0	7.1
21...	1146	125	49	6.7	6.5	7.1
21...	1147	130	49	6.7	6.5	7.1
21...	1148	140	48	6.7	6.5	6.9
21...	1149	150	51	6.7	6.5	6.8
SEP						
09...	1400	0.1	68	7.6	19.0	7.1
09...	1401	5.0	67	7.4	19.0	7.1
09...	1402	10.0	67	7.3	19.0	7.1
09...	1403	20.0	66	7.2	18.5	6.9
09...	1404	25.0	66	7.2	18.5	6.8
09...	1405	30.0	65	7.2	18.5	6.8
09...	1406	40.0	63	7.1	18.0	6.4
09...	1407	50.0	61	7.3	17.0	5.9
09...	1408	60.0	59	7.3	14.5	5.0
09...	1409	70.0	58	7.3	11.0	5.2
09...	1410	75.0	58	7.2	9.5	5.5
09...	1411	80.0	57	7.2	8.5	5.7
09...	1412	90.0	56	7.2	7.5	5.7
09...	1413	100	55	7.2	7.0	5.4
09...	1414	110	55	7.1	7.0	5.0
09...	1415	120	55	7.4	7.0	4.5
09...	1416	125	55	7.5	7.0	4.2
09...	1417	130	55	7.3	7.0	3.8
09...	1418	135	55	7.3	7.0	3.7

DATE	TIME	SAMPLING DEPTH (FEET)	TRANSPARENCY (SECCHI DISK) (IN)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ALGAL GROWTH POTENTIAL, BOTTLE TEST (MG/L)	PHYTOPLANKTON, TOTAL (CELLS PER ML)
JUL												
21...	1200	0.1	43.0	K4	K<1	34	<0.01	<0.10	<0.01	0.01	53	37600
21...	1215	150	--	--	--	32	<0.01	0.11	<0.01	0.02	--	--
SEP												
09...	1400	0.1	63.0	--	--	--	--	--	--	--	--	--

K BASED ON NON-IDEAL COLONY COUNT.

06738000 BIG THOMPSON RIVER AT MOUTH OF CANYON, NEAR DRAKE, CO

LOCATION.--Lat 40°25'18", long 105°13'34", in SW¼SW¼ sec.3, T.5 N., R.70 W., Larimer County, Hydrologic Unit 10190006, on right bank at mouth of canyon, 400 ft upstream from Handy Ditch diversion dam, and 6.0 mi east of Drake.

DRAINAGE AREA.--305 mi².

PERIOD OF RECORD.--August 1887 to September 1892, May 1895 to September 1903, October 1926 to September 1933 (no winter records prior to October 1932, except water years 1927-28), April 1938 to September 1949, March 1951 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as Big Thompson Creek at Arkins 1887-92, Big Thompson Creek near Arkins 1901-3, and as Thompson River at mouth of canyon, near Drake 1927-30, 1938-47.

REVISED RECORDS.--WSP 1310: 1891, 1927. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,305.47 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Oct. 1, 1949, to Sept. 18, 1977, at present site, datum 8.00 ft lower, Sept. 19, 1977, to July 27, 1980, at present site, datum 7.37 ft lower. See WSP 1710 or 1730 for history of changes prior to Oct. 1, 1949.

REMARKS.--Estimated daily discharges: Oct. 4-10, and Nov. 7 to Mar. 5. Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation. Diversions from Colorado River basin to Big Thompson River basin upstream from station through Alva B. Adams tunnel began Aug. 10, 1947 (see station 09013000 in Volume 2 for diversion during current year); since Apr. 15, 1953, this imported water has been diverted from Lake Estes through Olympus tunnel bypassing this station. Part of the natural flow of the Big Thompson River has also been diverted through Olympus tunnel since May 17, 1955, 264,000 acre-ft diverted during current year, and Dille tunnel since Apr. 20, 1959, 56,950 acre-ft, diverted during current year, and returned to the river just downstream from this station.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,200 ft³/s, July 31, 1976, gage height, 19.86 ft, from floodmarks, from slope-area measurements of peak flow; no flow at times in 1976 (all flow above station diverted through Olympus and Dille tunnels after flood of July 31, 1976), 1979-80 (all flow above station diverted through Dille tunnel).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,000 ft³/s at 2130 July 6, gage height, 4.08 ft; minimum daily, 13 ft³/s, Feb. 5-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	39	34	23	17	35	74	54	190	806	124	136
2	61	38	35	23	17	35	86	48	310	856	131	124
3	60	39	35	23	16	35	100	323	466	808	129	120
4	58	38	35	20	15	36	91	526	397	792	129	113
5	54	39	35	18	13	37	94	526	496	816	127	113
6	47	39	35	18	13	38	100	496	520	912	124	113
7	40	26	36	18	13	39	115	448	538	936	122	113
8	42	40	34	18	13	39	118	414	550	856	124	111
9	41	40	34	18	13	39	141	365	550	800	129	109
10	44	32	34	18	14	40	152	335	550	722	134	105
11	48	33	34	20	16	40	149	305	478	678	124	107
12	44	36	26	20	18	39	141	300	254	650	111	96
13	44	42	26	20	20	36	136	310	181	664	104	96
14	43	42	26	20	22	39	129	325	248	685	154	92
15	43	44	26	20	24	42	115	345	270	366	174	92
16	43	42	26	20	26	35	115	241	330	248	152	80
17	43	38	28	20	28	39	124	79	514	248	141	72
18	44	36	28	20	30	36	118	46	602	310	141	70
19	43	32	26	20	30	36	118	46	622	397	141	70
20	41	30	26	20	30	39	115	48	664	305	144	70
21	40	28	26	19	30	36	111	53	678	172	146	70
22	41	28	26	17	25	38	120	120	657	122	149	70
23	39	30	26	16	20	39	141	193	563	111	159	70
24	39	30	26	18	20	38	181	174	526	100	146	70
25	40	30	26	19	20	39	204	152	544	109	144	69
26	40	30	26	19	20	39	215	174	526	124	350	69
27	39	30	28	19	20	43	200	244	514	102	278	70
28	37	34	28	19	30	48	178	275	544	280	538	70
29	39	36	28	18	---	50	99	285	538	340	490	70
30	39	34	28	18	---	57	77	386	544	161	375	73
31	39	---	23	18	---	62	---	213	---	107	206	---
TOTAL	1378	1055	910	597	573	1243	3857	7849	14364	14583	5640	2703
MEAN	44.5	35.2	29.4	19.3	20.5	40.1	129	253	479	470	182	90.1
MAX	63	44	36	23	30	62	215	526	678	936	538	136
MIN	37	26	23	16	13	35	74	46	181	100	104	69
AC-FT	2730	2090	1800	1180	1140	2470	7650	15570	28490	28930	11190	5360

CAL YR 1985	TOTAL	34733	MEAN	95.2	MAX	671	MIN	10	AC-FT	68890
WTR YR 1986	TOTAL	54752	MEAN	150	MAX	936	MIN	13	AC-FT	108600

06739210 BIG THOMPSON RIVER ABOVE BUCKHORN CREEK NEAR LOVELAND, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 40°25'02", long 105°11'23", in NW¼SW¼NW¼ sec.12, T.5 N., R.70 W., Larimer County, Hydrologic Unit 10190006, 160 ft south of Highway 34, 1 mi above Buckhorn Creek.

DRAINAGE AREA.--314 mi².

PERIOD OF RECORD.--May 1987 to August 1987.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	ALKA-LINITY LAB (MG/L AS CACO3)
MAY											
01...	1330	440	50	7.8	10.5	9.4	19	5.5	1.2	--	18
JUN											
02...	1115	17	82	8.1	13.5	8.8	30	8.8	1.9	--	25
30...	1215	275	32	8.1	15.5	8.5	--	--	--	1.5	--
JUL											
21...	1445	145	47	8.3	20.0	7.7	15	4.7	0.90	--	16
AUG											
25...	1505	89	65	8.3	20.0	--	--	--	--	2.2	--

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS SOLVED (MG/L AS P)
MAY									
01...	--	--	--	--	--	<0.01	0.09	0.01	--
JUN									
02...	--	--	--	--	--	<0.01	0.05	0.03	--
30...	7.1	0.50	0.20	4.4	12	--	--	--	0.07
JUL									
21...	--	--	--	--	--	<0.01	0.04	0.01	--
AUG									
25...	5.7	0.70	0.20	3.6	37	--	--	--	0.01

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
MAY										
01...	1330	--	--	<1	--	--	--	6	1	460
JUN										
02...	1115	--	--	<1	--	--	--	4	7	150
30...	1215	<10	<1	--	<1	48	<1	--	--	--
JUL										
21...	1445	--	--	<1	--	--	--	4	<1	150
AUG										
25...	1505	20	<1	--	1	3	<1	--	--	--

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
MAY										
01...	<5	--	--	--	--	--	--	<0.1	<0.1	--
JUN										
02...	<5	--	--	--	--	--	--	0.1	<0.1	--
30...	--	<5	10	<0.10	<0.1	<1	<1	--	--	7
JUL										
21...	<5	--	--	--	--	--	--	<0.5	<0.5	--
AUG										
25...	--	<5	20	0.20	<0.1	<1	<1	--	--	22

06741480 BIG THOMPSON RIVER ABOVE LOVELAND, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 40°24'02", long 105°07'20", in SW¼NE¼ sec.16, T.5 N., R.69 W., Larimer County, Hydrologic Unit 10190006, at Wilson Avenue bridge 9 mi upstream from Greeley-Loveland Ditch and 2.5 mi west of Loveland.

DRAINAGE AREA.--525 mi^2, approximately.

PERIOD OF RECORD.--June 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	ALKA-LINITY LAB (MG/L AS CACO3)
OCT											
21...	1430	26	520	8.3	11.0	11.4	260	77	16	--	100
NOV											
18...	1420	12	900	7.6	7.5	--	440	130	29	--	167
DEC											
15...	1500	14	905	7.3	0.0	13.4	440	130	29	--	170
JAN											
12...	1445	8.7	950	8.2	4.5	11.0	480	140	31	--	169
MAR											
02...	1455	6.3	812	8.1	9.0	10.8	490	140	34	--	166
30...	1430	4.2	960	8.6	5.0	13.0	540	140	46	--	160
APR											
29...	0920	190	130	8.0	8.5	10.8	66	17	5.8	--	27
JUN											
02...	0930	55	340	8.5	14.5	10.2	140	40	9.7	--	77
30...	0945	221	190	8.2	18.0	7.3	--	--	--	5.3	--
JUL											
21...	1255	132	265	8.4	24.0	7.5	110	29	8.3	--	55
AUG											
25...	1210	99	470	8.5	21.0	--	--	--	--	8.0	--

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CYANIDE TOTAL (MG/L AS CN)
OCT											
21...	--	--	0.30	24	--	<0.01	--	0.03	0.40	0.02	--
NOV											
18...	--	--	0.40	8.5	--	<0.01	--	0.04	0.60	4.00	<0.01
DEC											
15...	--	--	0.40	12	--	<0.01	--	0.06	0.40	0.04	--
JAN											
12...	--	--	0.40	11	--	<0.01	--	0.04	0.70	<0.01	--
MAR											
02...	--	--	0.40	9.5	--	<0.01	--	0.06	0.80	<0.01	<0.01
30...	--	--	--	--	--	<0.01	0.43	0.05	--	--	--
APR											
29...	--	--	--	--	--	<0.01	0.07	<0.01	--	--	--
JUN											
02...	--	--	--	--	--	<0.01	0.03	0.02	--	--	--
30...	49	1.5	0.20	6.8	128	--	--	--	--	0.04	--
JUL											
21...	--	--	--	--	--	<0.01	0.067	0.02	--	--	--
AUG											
25...	82	2.1	0.20	6.1	199	--	--	--	--	0.01	--

06741480 BIG THOMPSON RIVER ABOVE LOVELAND, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)
OCT									
21...	1430	60	20	--	--	<1	--	<1	--
NOV									
18...	1420	--	--	<1	--	<1	--	<1	--
DEC									
15...	1500	10	10	--	--	<1	--	<1	--
JAN									
12...	1445	20	<10	--	--	<1	--	2	--
MAR									
02...	1455	--	--	<1	--	<1	--	<1	--
30...	1430	--	--	--	--	<1	--	--	--
APR									
29...	0920	--	--	--	--	<1	--	--	--
JUN									
02...	0930	--	--	--	--	<1	--	--	--
30...	0945	--	20	--	<1	--	<1	1	<1
JUL									
21...	1255	--	--	--	--	<1	--	--	--
AUG									
25...	1210	--	20	--	1	--	1	3	<1

DATE	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
OCT									
21...	4	--	--	30	<5	--	--	17	--
NOV									
18...	6	--	60	28	<5	--	50	35	<0.10
DEC									
15...	2	--	--	18	<5	--	--	24	--
JAN									
12...	5	--	--	42	<5	--	--	37	--
MAR									
02...	3	--	100	11	<5	--	70	43	<0.10
30...	3	3	60	--	<5	--	--	--	--
APR									
29...	6	4	660	--	<5	--	--	--	--
JUN									
02...	4	3	400	--	<5	--	--	--	--
30...	--	--	--	--	--	<5	40	--	<0.10
JUL									
21...	9	2	1100	--	<5	--	--	--	--
AUG									
25...	--	--	--	--	--	<5	40	--	0.20

DATE	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT									
21...	--	--	--	--	--	<0.1	--	190	--
NOV									
18...	--	<1	--	3	--	<0.1	--	<10	--
DEC									
15...	--	--	--	--	--	<0.1	--	10	--
JAN									
12...	--	--	--	--	--	<0.1	--	<10	--
MAR									
02...	--	2	--	7	--	<0.1	--	<10	--
30...	--	--	--	--	--	<0.1	<0.1	--	--
APR									
29...	--	--	--	--	--	<0.1	<0.1	--	--
JUN									
02...	--	--	--	--	--	<0.1	<0.1	--	--
30...	<0.1	--	<1	--	<1	--	--	--	8
JUL									
21...	--	--	--	--	--	<0.5	<0.5	--	--
AUG									
25...	<0.1	--	<1	--	1	--	--	--	6

06741510 BIG THOMPSON RIVER AT LOVELAND, CO

LOCATION.--Lat 40°22'43", long 105°03'38", in SE¼SE¼ sec.24, T.5 N., R.69 W., Larimer County, Hydrologic Unit 10190006, on right bank 690 ft downstream from county road bridge C-13, 1.7 mi south of sugar refinery in Loveland, and 1.9 mi downstream from Farmers Ditch diversion.

DRAINAGE AREA.--535 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1979 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,906 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 18-23, Dec. 26, 27, 29, Jan. 1-4, Jan. 6-11. Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--City of Loveland.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,970 ft^3/s, Apr. 30, 1980, gage height, 10.10 ft, from high-water mark; minimum daily, 0.90 ft^3/s, May 11, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 422 ft^3/s at 2400 June 9, gage height, 3.84 ft; minimum daily, 4.3 ft^3/s, May 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	40	17	11	13	9.6	7.4	7.8	40	33	53	24
2	13	32	17	11	12	14	11	6.4	43	39	34	43
3	13	31	16	10	12	22	8.9	5.8	46	37	30	50
4	22	38	16	10	12	23	8.4	6.1	87	31	27	53
5	43	36	17	10	12	23	8.0	7.0	94	33	22	49
6	37	34	17	10	11	23	8.9	6.6	68	25	25	44
7	31	36	17	10	11	22	11	5.5	76	19	54	38
8	32	31	17	10	11	23	10	4.9	91	15	145	35
9	31	22	17	11	11	18	9.3	4.4	286	22	192	33
10	31	20	27	11	11	11	8.8	4.3	264	25	187	33
11	35	19	20	11	11	10	9.2	4.8	229	30	180	39
12	30	20	18	12	11	9.9	14	5.5	162	41	164	41
13	30	25	18	12	9.8	9.7	11	9.4	100	36	177	37
14	30	20	15	12	7.2	8.9	9.5	17	125	31	182	35
15	29	18	13	15	7.0	9.0	8.5	21	160	40	189	47
16	26	17	13	57	6.7	13	8.1	37	121	42	132	41
17	23	17	12	56	6.5	12	8.4	52	79	36	70	37
18	24	17	12	53	6.6	10	15	316	87	40	53	30
19	25	16	12	45	7.3	9.4	35	247	89	36	47	27
20	28	17	12	41	7.8	9.0	59	348	88	35	51	24
21	30	17	11	39	6.7	8.5	18	285	77	33	55	28
22	39	16	11	37	6.4	8.9	7.9	284	76	29	46	21
23	38	16	11	34	6.1	8.5	7.0	238	68	22	44	20
24	42	16	11	30	6.1	8.8	7.1	218	46	19	43	20
25	44	16	11	22	6.1	8.6	11	191	30	18	33	19
26	41	16	11	15	7.9	8.0	9.2	155	31	19	39	18
27	39	17	11	15	16	7.9	7.9	108	29	19	45	14
28	37	16	11	14	11	7.4	16	73	25	18	30	12
29	38	16	11	13	---	7.3	10	72	67	22	16	14
30	35	18	11	13	---	7.2	7.8	73	70	32	14	12
31	34	---	11	13	---	7.5	---	59	---	49	12	---
TOTAL	961	670	444	663	263.2	378.1	371.3	2872.5	2854	926	2391	938
MEAN	31.0	22.3	14.3	21.4	9.40	12.2	12.4	92.7	95.1	29.9	77.1	31.3
MAX	44	40	27	57	16	23	59	348	286	49	192	53
MIN	11	16	11	10	6.1	7.2	7.0	4.3	25	15	12	12
AC-FT	1910	1330	881	1320	522	750	736	5700	5660	1840	4740	1860

CAL YR 1986 TOTAL 30950.4 MEAN 84.8 MAX 647 MIN 4.6 AC-FT 61390
WTR YR 1987 TOTAL 13732.1 MEAN 37.6 MAX 348 MIN 4.3 AC-FT 27240

06741510 BIG THOMPSON RIVER AT LOVELAND, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	ALKA-LINITY LAB (MG/L AS CACO3)
OCT											
21...	1300	29	750	8.2	11.5	11.6	350	94	27	--	120
NOV											
18...	1245	16	1070	7.6	7.0	--	450	120	36	--	158
DEC											
15...	1300	15	980	7.2	0.0	14.4	480	130	37	--	167
JAN											
12...	1300	12	1050	8.2	4.0	9.6	480	130	38	--	168
MAR											
02...	1320	9.5	900	8.0	6.0	11.4	500	130	43	--	168
30...	1245	8.4	1020	8.7	3.0	14.2	530	130	49	--	164
APR											
28...	1625	9.4	470	8.8	19.0	10.6	180	42	19	--	62
JUN											
01...	1530	33	730	9.2	21.0	10.6	330	78	33	--	105
29...	1305	--	740	8.2	18.0	7.3	--	--	--	38	--
JUL											
21...	0945	34	650	8.3	19.0	9.2	310	70	32	--	89
AUG											
25...	1005	34	450	8.2	18.0	--	--	--	--	20	--

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CYANIDE TOTAL (MG/L AS CN)
OCT											
21...	--	--	0.30	5.7	--	<0.01	--	0.03	0.30	0.02	--
NOV											
18...	--	--	0.40	6.7	--	<0.01	--	0.02	0.50	0.02	<0.01
DEC											
15...	--	--	0.40	9.1	--	<0.01	--	0.05	0.40	0.04	--
JAN											
12...	--	--	0.40	8.8	--	<0.01	--	0.06	0.20	0.02	--
MAR											
02...	--	--	0.40	7.7	--	<0.01	--	0.07	0.80	0.02	<0.01
30...	--	--	--	--	--	<0.01	0.46	3.20	--	--	--
APR											
28...	--	--	--	--	--	0.01	0.20	0.01	--	--	--
JUN											
01...	--	--	--	--	--	<0.01	0.06	0.05	--	--	--
29...	300	5.8	0.30	5.5	522	--	--	--	--	0.05	--
JUL											
21...	--	--	--	--	--	<0.01	0.06	0.01	--	--	--
AUG											
25...	150	4.0	0.30	6.2	321	--	--	--	--	0.03	--

06741510 BIG THOMPSON RIVER AT LOVELAND, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)
OCT									
21...	1300	60	20	--	--	<1	--	<1	--
NOV									
18...	1245	--	--	<1	--	<1	--	<1	--
DEC									
15...	1300	20	<10	--	--	<1	--	<1	--
JAN									
12...	1300	<10	<10	--	--	<1	--	2	--
MAR									
02...	1320	--	--	<1	--	<1	--	<1	--
30...	1245	--	--	--	--	<1	--	--	--
APR									
28...	1625	--	--	--	--	<1	--	--	--
JUN									
01...	1530	--	--	--	--	<1	--	--	--
29...	1305	--	<10	--	<1	--	<1	1	<1
JUL									
21...	0945	--	--	--	--	<1	--	--	--
AUG									
25...	1005	--	20	--	<1	--	2	1	<1

DATE	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
OCT									
21...	4	--	--	40	<5	--	--	21	--
NOV									
18...	7	--	80	31	7	--	40	33	<0.10
DEC									
15...	2	--	--	23	<5	--	--	31	--
JAN									
12...	9	--	--	30	<5	--	--	31	--
MAR									
02...	6	--	110	25	<5	--	40	38	<0.10
30...	3	5	90	--	<5	--	--	--	--
APR									
28...	4	2	210	--	<5	--	--	--	--
JUN									
01...	5	5	280	--	<5	--	--	--	--
29...	--	--	--	--	--	<5	60	--	<0.10
JUL									
21...	5	<1	590	--	<5	--	--	--	--
AUG									
25...	--	--	--	--	--	<5	30	--	0.20

DATE	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT								
21...	--	--	--	--	--	<.1	220	--
NOV								
18...	--	1	--	3	--	<.1	10	--
DEC								
15...	--	--	--	--	--	<.1	10	--
JAN								
12...	--	--	--	--	--	<.1	<10	--
MAR								
02...	--	3	--	6	--	<.1	20	--
30...	--	--	--	--	--	<.1	--	--
APR								
28...	--	--	--	--	--	<.1	--	--
JUN								
01...	--	--	--	--	--	<.1	--	--
29...	<0.1	--	<1	--	2	--	--	<3
JUL								
21...	--	--	--	--	--	<.5	--	--
AUG								
25...	<0.1	--	<1	--	1	--	--	8

06741520 BIG THOMPSON RIVER BELOW LOVELAND, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 40°23'00", long 105°01'45", in NW¼SE¼ sec.20, T.5 N., R.68 W., Larimer County, Hydrologic Unit 10190006, at county road 9 E bridge, about 0.3 mi upstream from outlet ditch and 2.0 mi southeast of Loveland.

DRAINAGE AREA.--540 mi^2, approximately.

PERIOD OF RECORD.--June 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT									
21...	1045	41	815	8.0	11.5	8.9	340	87	29
NOV									
18...	1000	26	1020	8.7	8.0	--	430	110	38
DEC									
15...	1045	20	1020	7.3	0.0	14.0	440	110	39
JAN									
12...	1020	19	1090	8.1	2.5	12.5	500	130	42
MAR									
02...	1030	18	944	8.0	6.0	11.8	450	110	42
30...	1015	18	1060	8.4	3.5	12.1	470	110	47
APR									
28...	1445	25	635	8.5	19.5	11.6	230	52	24
JUN									
01...	1305	54	940	8.6	19.0	9.5	340	77	36
29...	1315	--	850	8.0	18.0	7.2	--	--	--
JUL									
20...	1445	54	650	9.1	25.0	12.0	280	64	28
AUG									
24...	1455	53	650	8.7	21.0	9.7	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT							
21...	--	117	--	--	0.50	5.6	--
NOV							
18...	--	159	--	--	0.60	5.1	--
DEC							
15...	--	151	--	--	0.70	7.7	--
JAN							
12...	--	162	--	--	0.60	8.1	--
MAR							
02...	--	147	--	--	0.50	7.5	--
30...	--	174	--	--	--	--	--
APR							
28...	--	70	--	--	--	--	--
JUN							
01...	--	114	--	--	--	--	--
29...	53	--	340	12	0.50	6.1	650
JUL							
20...	--	94	--	--	--	--	--
AUG							
24...	35	--	200	11	0.50	7.2	424

06741520 BIG THOMPSON RIVER BELOW LOVELAND, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHOROUS TOTAL (MG/L AS P)	PHOSPHOROUS DISSOLVED (MG/L AS P)	CYANIDE TOTAL (MG/L AS CN)
OCT 21...	0.09	--	0.17	0.90	--	12.0	--
NOV 18...	0.10	--	0.41	1.1	--	0.02	<0.01
DEC 15...	0.21	--	1.00	1.2	2.20	2.00	--
JAN 12...	0.16	--	0.26	1.0	--	1.40	--
MAR 02...	0.48	--	2.40	2.7	--	0.30	<0.01
30...	<0.01	3.00	0.06	--	--	--	--
APR 28...	0.36	3.10	0.59	--	--	--	--
JUN 01...	0.16	2.10	0.49	--	--	--	--
29...	--	--	--	--	--	0.68	--
JUL 20...	<0.01	0.92	0.03	--	--	--	--
AUG 24...	--	--	--	--	--	1.30	--

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)
OCT 21...	1045	80	20	--	--	<1	--	<1	--
NOV 18...	1000	--	--	<1	--	<1	--	<1	--
DEC 15...	1045	80	<10	--	--	1	--	<1	--
JAN 12...	1020	30	20	--	--	<1	--	3	--
MAR 02...	1030	--	--	<1	--	<1	--	<1	--
30...	1015	--	--	--	--	<1	--	--	--
APR 28...	1445	--	--	--	--	<1	--	--	--
JUN 01...	1305	--	--	--	--	<1	--	--	--
29...	1315	--	<10	--	<1	--	<1	2	<1
JUL 20...	1445	--	--	--	--	<1	--	--	--
AUG 24...	1455	--	20	--	1	--	1	2	<1

DATE	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
OCT 21...	5	--	--	44	<5	--	--	28	--
NOV 18...	12	--	90	38	7	--	40	30	<0.10
DEC 15...	5	--	--	34	<5	--	--	38	--
JAN 12...	11	--	--	63	5	--	--	37	--
MAR 02...	6	--	160	33	<5	--	60	48	<0.10
30...	5	5	180	--	<5	--	--	--	--
APR 28...	5	8	230	--	<5	--	--	--	--
JUN 01...	4	4	340	--	<5	--	--	--	--
29...	--	--	--	--	--	<5	70	--	<0.10
JUL 20...	6	5	360	--	9	--	--	--	--
AUG 24...	--	--	--	--	--	<5	30	--	0.30

06741520 BIG THOMPSON RIVER BELOW LOVELAND, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT									
21...	--	--	--	--	--	<0.1	--	300	--
NOV									
18...	--	1	--	3	--	<0.1	--	20	--
DEC									
15...	--	--	--	--	--	0.1	--	30	--
JAN									
12...	--	--	--	--	--	0.1	--	10	--
MAR									
02...	--	3	--	5	--	<0.2	--	20	--
30...	--	--	--	--	--	0.2	0.1	--	--
APR									
28...	--	--	--	--	--	0.1	0.1	--	--
JUN									
01...	--	--	--	--	--	0.1	<0.1	--	--
29...	<0.1	--	<1	--	2	--	--	--	5
JUL									
20...	--	--	--	--	--	<0.5	<0.5	--	--
AUG									
24...	<0.1	--	3	--	1	--	--	--	8

06741530 BIG THOMPSON RIVER AT I-25 NEAR LOVELAND, CO.

WATER QUALITY RECORDS

LOCATION.--Lat 40°23'51", long 104°59'32", in NW¼SW¼ sec.15, T.5 N., R.68 W., Larimer County, Hydrologic Unit 10190006, at bridge on Big Thompson River on north bound lane of Interstate Highway 25 (I-25), 1.5 mi downstream from Hillsboro Ditch, 4.5 mi east of Loveland.

DRAINAGE AREA.--571 mi².

PERIOD OF RECORD.--April 28, 1987 to August 24, 1987.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	ALKA-LINITY LAB (MG/L AS CACO3)
APR											
28...	1235	53	1100	8.3	17.0	9.9	490	110	53	--	144
JUN											
01...	1025	14	900	8.3	16.0	9.5	390	86	43	--	144
29...	1045	34	740	8.1	18.5	7.5	--	--	--	45	--
JUL											
20...	1325	34	605	8.9	24.0	10.8	250	58	25	--	108
AUG											
24...	1340	52	625	8.6	20.0	9.7	--	--	--	33	--

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
APR										
28...	--	--	--	--	--	2.50	0.40	2.90	1.10	--
JUN										
01...	--	--	--	--	--	1.03	0.07	1.10	0.17	--
29...	270	8.3	0.40	4.3	524	--	--	--	--	0.30
JUL										
20...	--	--	--	--	--	--	<0.01	0.69	0.02	--
AUG										
24...	190	7.6	0.50	5.6	407	--	--	--	--	0.38

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
APR										
28...	1235	--	--	<1	--	--	--	7	8	370
JUN										
01...	1025	--	--	<1	--	--	--	3	5	350
29...	1045	<10	1	--	<1	1	<1	--	--	--
JUL										
20...	1325	--	--	<1	--	--	--	7	3	680
AUG										
24...	1340	20	1	--	1	<1	<1	--	--	--

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
APR										
28...	5	--	--	--	--	--	--	<0.1	<0.1	--
JUN										
01...	<5	--	--	--	--	--	--	<0.1	<0.1	--
29...	--	<5	70	<0.10	<0.1	<1	2	--	--	4
JUL										
20...	<5	--	--	--	--	--	--	<0.5	<0.5	--
AUG										
24...	--	<5	30	0.20	<0.1	<1	2	--	--	5

06742500 CARTER LAKE NEAR BERTHOUD, CO

LOCATION.--Lat 40°19'28", long 105°12'41", in SE¼ sec.10, T.4 N., R.70 W., Larimer County, Hydrologic Unit 10190006, in hoist house 293 ft from right abutment of Carter Lake Dam on Dry Creek, 7.0 mi west of Berthoud, and 8.9 mi upstream from mouth. Water-quality sampling site near center of reservoir.

RESERVOIR ELEVATIONS AND CONTENTS RECORDS

PERIOD OF RECORD.--March 1954 to current year.

GAGE.--Nonrecording gage read at irregular intervals from 1 to 13 days. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by an earth and rockfill dam and dikes enlarging the natural basin of Carter Lake. Storage began in February 1954. Usable capacity, 113,500 acre-ft between elevations 5,618.00 ft, trashrack sill at outlet, and 5,763.00 ft, maximum water surface, 6 ft below crest of dam. Dead storage, 3,360 acre-ft. Figures given represent usable contents. Water diverted from Colorado River basin through Alva B. Adams tunnel is pumped from Flatiron Reservoir into Carter Lake for supplemental irrigation supply to Little Thompson River and St. Vrain and Boulder Creek basins. Water above elevation 5,620 ft may be released for return to Flatiron Reservoir where pump turbines can operate in reverse to generate power and water can be used for irrigation in Big Thompson or Cache la Poudre River basins.

COOPERATION.--Records provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 109,100 acre-ft, Apr. 27-29, 1971, elevation, 5,759.12 ft; minimum observed since appreciable storage was attained, 960 acre-ft, Oct. 25, 1954, elevation, 5,621.40 ft.

EXTREMES FOR WATER YEAR 1986.--Maximum contents, 108,400 acre-ft, June 22, elevation, 5,758.58 ft; minimum contents, 40,660 acre-ft, Oct.15, elevation, 5,690.30 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 108,400 acre-ft, Apr. 21, elevation, 5,758.52 ft; minimum contents, 52,170 acre-ft, Sept. 30, elevation, 5,703.70 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	5,690.86	41,120	-
Oct. 31	5,693.30	43,150	+2,030
Nov. 30	5,707.20	55,330	+12,180
Dec. 31	5,721.16	68,590	+13,260
CAL YR 1985			-25,830
Jan. 31	5,731.52	79,040	+10,450
Feb. 28	5,740.18	88,120	+9,080
Mar. 31	5,749.80	98,570	+10,450
Apr. 30	5,754.34	103,600	+5,030
May 31	5,751.02	99,930	-3,670
June 30	5,757.76	107,500	+7,570
July 31	5,740.42	88,380	-19,120
Aug. 31	5,718.00	65,510	-22,870
Sept. 30	5,710.00	57,910	-7,600
WTR YR 1986			+16,790

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	5,710.00	57,910	-
Oct. 31	5,710.14	58,040	+130
Nov. 30	5,725.04	72,450	+14,410
Dec. 31	5,742.60	90,720	+18,270
CAL YR 1986			+22,120
Jan. 31	5,757.36	107,100	+16,380
Feb. 28	5,758.06	107,800	+700
Mar. 31	5,757.54	107,300	-500
Apr. 30	5,757.26	106,900	-400
May 31	5,757.78	107,500	+600
June 30	5,750.18	99,000	-8,500
July 31	5,729.60	77,070	-21,930
Aug. 31	5,715.40	63,010	-14,060
Sept. 30	5,703.70	52,170	-10,840
WTR YR 1987			-5,740

Note.--Record of reservoir elevations and contents for water year 1986 were omitted from the report for 1986, and are being published herewith.

06742500 CARTER LAKE NEAR BERTHOUD, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1970 to current year.

REMARKS.--Samples collected at various depths near south end of reservoir. Reservoir storage represents usable contents. A complete taxonomic identification with cell counts for phytoplankton available in district office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
JUL						
22...	1015	0.1	82	7.8	21.0	7.1
22...	1016	5.0	81	7.8	21.0	7.1
22...	1017	10.0	82	7.8	21.0	7.1
22...	1018	20.0	81	7.8	21.0	7.2
22...	1019	25.0	77	7.5	13.5	8.1
22...	1020	30.0	74	7.2	10.5	7.7
22...	1021	40.0	71	7.1	8.5	7.5
22...	1022	50.0	69	6.9	7.0	7.3
22...	1023	60.0	66	6.9	6.0	7.4
22...	1024	70.0	65	6.8	6.0	7.3
22...	1025	75.0	64	6.8	6.0	7.3
22...	1026	80.0	63	6.8	5.5	7.3
22...	1027	90.0	61	6.8	5.5	7.3
22...	1028	100	60	6.8	5.5	7.2
22...	1029	110	59	6.8	5.0	6.9
22...	1030	120	58	6.8	5.0	6.5
22...	1031	125	58	6.7	5.0	6.4
SEP						
10...	0850	0.1	93	7.8	18.0	7.2
10...	0851	5.0	93	7.7	18.0	7.2
10...	0852	10.0	93	7.7	18.0	7.2
10...	0853	20.0	92	7.6	18.0	7.2
10...	0854	25.0	91	7.6	18.0	7.2
10...	0855	30.0	91	7.6	18.0	7.1
10...	0856	40.0	72	7.3	11.5	6.4
10...	0857	50.0	68	7.4	10.0	6.2
10...	0858	60.0	67	7.7	9.0	5.7
10...	0859	70.0	65	7.3	8.5	5.7
10...	0900	75.0	65	7.2	8.5	5.6
10...	0901	80.0	64	7.1	7.5	5.4
10...	0902	90.0	63	7.1	7.0	5.2
10...	0903	95.0	62	7.0	6.5	4.9

DATE	TIME	SAMPLING DEPTH (FEET)	TRANSPARENCY (SECCHI DISK) (IN)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHOROUS TOTAL (MG/L AS P)	ALGAL GROWTH POTENTIAL, BOTTLE TEST (MG/L)	PHYTOPLANKTON, TOTAL (CELLS PER ML)
JUL												
22...	1050	0.10	88.0	K2	K<1	38	<0.01	<0.10	<0.01	0.01	51	11700
22...	1105	125	--	--	--	39	<0.01	<0.10	<0.01	0.02	--	--
SEP												
10...	0850	0.10	88.0	K1	K<1	--	--	--	--	--	--	--

K BASED ON NON-IDEAL COLONY COUNT.

402053105125800 CARTER LAKE NEAR BERTHOUD, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1983 to current year.

REMARKS.--Samples collected at various depths near north end of reservoir. A complete taxonomic identification with cell counts for phytoplankton available in district office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAY						
15...	1056	0.1	--	8.2	11.5	9.4
15...	1057	5.0	--	8.2	11.0	9.0
15...	1058	10.0	--	8.1	11.0	9.0
15...	1059	20.0	--	8.1	10.0	8.9
15...	1100	25.0	--	8.0	9.5	8.9
15...	1101	30.0	--	7.9	8.5	8.9
15...	1102	40.0	--	7.8	7.0	9.0
15...	1103	50.0	--	7.8	6.5	9.0
15...	1104	60.0	--	7.7	6.0	9.0
15...	1105	70.0	--	7.6	6.0	9.0
15...	1106	75.0	--	7.5	6.0	9.0
15...	1107	80.0	--	7.5	5.5	9.0
15...	1108	90.0	--	7.4	5.5	9.0
15...	1109	100	--	7.4	5.5	8.9
15...	1110	110	--	7.4	5.5	8.8
15...	1111	120	--	7.3	5.5	8.8
15...	1112	125	--	7.3	5.5	8.7
15...	1113	130	--	7.3	5.5	8.7
15...	1114	140	--	7.3	5.5	8.6
15...	1115	150	--	7.2	5.0	8.5
JUL						
23...	1105	0.1	--	7.8	21.0	--
23...	1106	5.0	--	7.8	21.0	--
23...	1107	10.0	--	7.8	20.5	--
23...	1108	20.0	--	7.8	20.0	--
23...	1109	25.0	--	7.8	14.0	--
23...	1110	30.0	--	7.8	11.5	--
23...	1111	40.0	--	7.7	9.5	--
23...	1112	50.0	--	7.6	8.0	--
23...	1113	60.0	--	7.6	7.5	--
23...	1114	70.0	--	7.5	7.5	--
23...	1115	75.0	--	7.4	7.5	--
23...	1116	80.0	--	7.4	7.5	--
23...	1117	90.0	--	7.3	7.5	--
23...	1118	100	--	7.2	7.5	--
23...	1119	110	--	7.2	7.5	--
23...	1120	120	--	7.2	7.5	--
SEP						
17...	1205	0.1	87	7.7	18.0	7.6
17...	1206	5.0	87	7.6	18.0	7.6
17...	1207	10.0	87	7.7	18.0	7.6
17...	1208	20.0	86	7.7	17.0	7.5
17...	1209	25.0	87	7.7	17.0	7.4
17...	1210	30.0	81	7.7	17.0	7.3
17...	1211	40.0	75	7.7	13.0	5.8
17...	1212	50.0	70	7.7	9.5	5.9
17...	1213	60.0	69	7.7	8.5	6.0
17...	1214	70.0	69	7.6	8.0	6.0
17...	1215	75.0	68	7.6	8.0	5.9

DATE	TIME	SAM-PLING DEPTH (FEET)	TRANS-PAR-ENCY (SECCHI DISK) (IN)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	ALGAL GROWTH POTEN-TIAL, BOTTLE TEST (MG/L)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)
MAY												
15...	1055	0.1	96.0	--	--	--	--	--	--	--	--	--
JUL												
23...	1130	0.1	92.0	K1	K1	35	0.02	<0.10	0.01	0.01	44	7200
23...	1140	--	--	K1	K1	33	0.02	0.13	0.03	0.01	--	--
SEP												
17...	1200	0.1	126	--	--	--	--	--	--	--	--	--

K BASED ON NON-IDEAL COLONY COUNT.

402053105125800 CARTER LAKE NEAR BERTHOUD, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
JUL						
22...	0910	0.1	85	7.7	21.0	7.2
22...	0911	5.0	84	7.7	21.0	7.1
22...	0912	10.0	84	7.7	21.0	7.1
22...	0913	20.0	83	7.7	21.0	7.1
22...	0914	25.0	80	7.8	18.5	7.6
22...	0915	30.0	75	7.6	13.5	8.1
22...	0916	40.0	71	7.3	10.0	7.7
22...	0917	50.0	66	7.0	7.0	7.3
22...	0918	60.0	65	6.9	6.5	7.2
22...	0919	70.0	63	6.8	6.0	7.2
22...	0920	75.0	62	6.8	6.0	7.4
22...	0921	80.0	61	6.8	6.0	7.4
22...	0922	90.0	60	6.8	5.5	7.3
22...	0923	95.0	60	6.8	5.5	7.3
SEP						
10...	1025	0.1	87	8.0	18.5	7.3
10...	1026	5.0	87	7.8	18.5	7.3
10...	1027	10.0	87	7.8	18.5	7.2
10...	1028	20.0	86	7.8	18.5	7.2
10...	1029	25.0	83	7.5	17.0	6.8
10...	1030	30.0	74	7.6	13.0	6.7
10...	1031	40.0	70	7.6	10.5	6.2
10...	1032	50.0	67	7.5	9.5	6.1
10...	1033	60.0	66	7.3	9.0	6.0
10...	1034	70.0	64	7.1	9.0	5.8
10...	1035	75.0	64	7.0	8.0	5.7

DATE	TIME	SAMPLING DEPTH (FEET)	TRANSPARENCY (SECCHI DISK) (IN)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHOROUS TOTAL (MG/L AS P)	ALGAL GROWTH POTENTIAL, BOTTLE TEST (MG/L)	PHYTOPLANKTON, TOTAL (CELLS PER ML)
JUL												
22...	0940	0.10	106	K2	K<1	39	<0.01	<0.10	<0.01	0.01	57	30600
22...	0955	95.0	--	--	--	37	<0.01	<0.10	<0.01	0.02	--	--
SEP												
10...	1025	0.10	103	--	--	--	--	--	--	--	--	--

K BASED ON NON-IDEAL COLONY COUNT.

402009105130700 CARTER LAKE NEAR BERTHOUD, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1983 to current year.

REMARKS.--Samples collected at various depths near center of reservoir. A complete taxonomic identification with cell counts for phytoplankton available in district office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAY						
15...	1034	0.1	--	8.2	11.0	9.5
15...	1035	5.0	--	8.2	11.0	9.1
15...	1036	10.0	--	8.1	10.5	9.0
15...	1037	20.0	--	8.1	10.5	8.9
15...	1038	25.0	--	8.1	10.0	8.9
15...	1039	30.0	--	8.0	9.0	9.0
15...	1040	40.0	--	7.9	7.0	9.0
15...	1041	50.0	--	7.8	7.0	8.9
15...	1042	60.0	--	7.7	6.5	8.9
15...	1043	70.0	--	7.6	6.0	8.9
15...	1044	75.0	--	7.6	6.0	8.9
15...	1045	80.0	--	7.5	6.0	9.0
15...	1046	90.0	--	7.5	5.5	8.9
15...	1047	100	--	7.4	5.5	8.9
15...	1048	110	--	7.4	5.5	8.8
15...	1049	120	--	7.3	5.5	8.8
15...	1050	125	--	7.3	5.5	8.7
15...	1051	130	--	7.3	5.0	8.7
15...	1052	140	--	7.2	5.0	8.6
15...	1053	150	--	7.2	5.0	8.5
JUL						
23...	1015	0.1	--	--	21.0	--
23...	1016	5.0	--	--	20.5	--
23...	1017	10.0	--	--	20.0	--
23...	1018	20.0	--	--	19.5	--
23...	1019	25.0	--	--	17.0	--
23...	1020	30.0	--	--	12.5	--
23...	1021	40.0	--	--	9.0	--
23...	1022	50.0	--	--	8.0	--
23...	1023	60.0	--	--	7.5	--
23...	1024	70.0	--	--	7.5	--
23...	1025	75.0	--	--	7.5	--
23...	1026	80.0	--	--	7.5	--
23...	1027	90.0	--	--	7.0	--
23...	1028	100	--	--	7.0	--
23...	1029	110	--	--	7.0	--
23...	1030	120	--	--	7.0	--
23...	1031	125	--	--	7.0	--
23...	1032	130	--	--	7.0	--
SEP						
17...	1025	0.1	85	7.7	17.5	7.6
17...	1026	5.0	85	7.7	17.5	7.6
17...	1027	10.0	86	7.7	17.0	7.6
17...	1028	20.0	86	7.8	17.0	7.5
17...	1029	25.0	86	7.8	17.0	7.5
17...	1030	30.0	79	7.8	17.0	7.4
17...	1031	40.0	74	7.8	12.5	5.9
17...	1032	50.0	69	7.7	9.5	6.1
17...	1033	60.0	69	7.7	8.5	6.2
17...	1034	70.0	69	7.7	8.0	6.4
17...	1035	75.0	67	7.6	8.0	6.4
17...	1036	80.0	67	7.6	7.5	6.1
17...	1037	90.0	67	7.6	7.5	6.4
17...	1038	100	67	7.6	7.0	5.2

DATE	TIME	SAM-PLING DEPTH (FEET)	TRANS-PAR-ENCY (SECCHI DISK) (IN)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	ALGAL GROWTH POTEN-TIAL, BOTTLE TEST (MG/L)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)
MAY												
15...	1030	0.1	120	K1	K1	49	<0.01	<0.10	<0.01	0.02	53	6100
JUL												
23...	1040	0.1	98.0	K1	K1	40	0.02	<0.10	0.01	<0.01	49	8100
23...	1050	130	--	--	--	40	0.02	0.12	0.02	<0.01	--	--
SEP												
17...	1025	0.1	124	K1	K1	58	<0.01	<0.10	<0.01	<0.01	65	8800

K BASED ON NON-IDEAL COLONY COUNT.

402009105130700 CARTER LAKE NEAR BERTHOUD, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
JUL						
22...	1210	0.1	84	7.7	21.5	7.1
22...	1211	5.0	83	7.7	21.5	7.1
22...	1212	10.0	83	7.7	21.5	7.1
22...	1213	20.0	82	7.8	20.5	7.3
22...	1214	25.0	79	8.0	17.0	8.2
22...	1215	30.0	75	7.2	11.5	8.0
22...	1216	40.0	71	7.0	7.5	7.4
22...	1217	50.0	68	6.8	6.5	7.4
22...	1218	60.0	66	6.8	6.0	7.5
22...	1219	70.0	64	6.8	5.5	7.7
22...	1220	75.0	63	6.8	5.5	7.7
22...	1221	80.0	63	6.8	5.5	7.7
22...	1222	90.0	62	6.8	5.5	7.6
22...	1223	100	60	6.8	5.5	7.4
22...	1224	110	59	6.8	5.0	7.3
22...	1225	120	57	6.8	5.0	7.2
SEP						
10...	0930	0.1	88	7.9	18.5	7.3
10...	0931	5.0	87	7.8	18.5	7.2
10...	0932	10.0	87	7.8	18.5	7.2
10...	0933	20.0	86	7.8	18.5	7.2
10...	0934	25.0	86	7.8	18.0	7.2
10...	0935	30.0	79	7.5	14.0	6.8
10...	0936	40.0	70	7.4	10.5	6.2
10...	0937	50.0	68	7.6	10.0	6.1
10...	0938	60.0	67	7.3	9.5	6.0
10...	0939	70.0	65	7.0	9.0	6.0
10...	0940	75.0	64	7.0	8.5	6.0
10...	0941	80.0	64	7.0	8.5	6.0
10...	0942	90.0	62	7.1	7.5	5.9
10...	0943	100	60	7.1	6.5	5.1
10...	0944	110	59	7.1	6.0	4.8
10...	0945	115	59	6.9	5.5	4.3

DATE	TIME	SAM-PLING DEPTH (FEET)	TRANS-PAR-ENCY (SECCHI DISK) (IN)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	ALGAL GROWTH POTEN-TIAL, BOTTLE TEST (MG/L)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)
JUL												
22...	1240	0.10	88.0	K1	K<1	38	<0.01	<0.10	<0.01	0.01	58	7000
22...	1255	120	--	--	--	38	<0.01	<0.10	<0.01	0.02	--	--
SEP												
10...	0920	0.10	112	--	--	40	<0.01	<0.10	0.01	0.01	33	27200

K BASED ON NON-IDEAL COLONY COUNT.

06746095 JOE WRIGHT CREEK ABOVE JOE WRIGHT RESERVOIR, CO

LOCATION.--Lat 40°32'24", long 105°52'56", in SE¼SE¼ sec.26, T.7 N., R.76 W., Larimer County, Hydrologic Unit 10190007, on left bank 150 ft downstream from unnamed tributary and Colorado Highway 14 culvert crossing, 1.5 mi northeast of Cameron Pass, 1.5 mi southwest of Joe Wright Dam, and 8 mi east of Gould.

DRAINAGE AREA.--3.01 mi².

PERIOD OF RECORD.--October 1978 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,990 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 1 to May 21, and July 3-30. Records good except for estimated daily discharges, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years, 7.28 ft³/s; 5,270 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 238 ft³/s, July 7, 1983, gage height, 2.20 ft; maximum gage height, 5.41 ft, May 27, 1983 (backwater from ice); minimum daily discharge, 0.20 ft³/s, Jan. 30 to Apr. 4, 1979, and Feb. 9 to Apr. 9, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 116 ft³/s at 1730 June 8, gage height, 1.61 ft; minimum daily, 0.35 ft³/s, Mar. 22 to Apr. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	3.1	1.2	.52	.45	.39	.35	6.2	21	25	25	1.5
2	5.0	3.0	1.2	.52	.44	.39	.35	5.6	21	24	14	1.4
3	5.2	2.9	1.2	.50	.44	.39	.35	5.0	22	23	13	1.3
4	5.1	2.8	1.1	.50	.44	.38	.36	4.5	24	23	12	1.1
5	4.7	2.7	1.1	.50	.44	.38	.36	4.1	27	22	11	1.2
6	5.2	2.7	1.1	.50	.44	.38	.36	4.9	29	21	11	1.2
7	5.2	2.6	1.0	.50	.43	.38	.36	5.8	32	21	13	1.1
8	5.2	2.5	1.0	.50	.43	.38	.36	7.4	63	20	11	1.1
9	5.0	2.4	.98	.50	.43	.38	.36	9.0	62	20	10	1.1
10	4.9	2.4	.96	.50	.43	.38	.36	11	34	19	9.5	1.1
11	5.1	2.3	.92	.49	.43	.37	.36	13	31	18	9.1	1.0
12	5.1	2.2	.90	.49	.42	.37	.36	17	30	18	8.8	1.0
13	4.8	2.2	.88	.49	.42	.37	.36	20	28	17	9.0	1.0
14	4.7	2.1	.84	.48	.42	.37	.36	25	26	17	8.8	1.0
15	4.3	2.0	.82	.48	.42	.37	.37	30	24	16	7.4	1.0
16	4.3	2.0	.78	.48	.42	.36	.44	35	23	16	7.1	1.0
17	3.9	1.9	.76	.48	.41	.36	.52	47	[illegible]	16	6.4	1.0
18	3.9	1.9	.74	.47	.41	.36	.62	46	54	15	6.0	.94
19	3.6	1.8	.72	.47	.41	.36	.74	45	50	15	5.5	.94
20	3.6	1.8	.70	.47	.41	.36	.88	44	45	14	5.2	.86
21	3.7	1.7	.68	.47	.40	.36	1.1	44	40	14	5.4	.86
22	14	1.6	.66	.47	.40	.35	1.3	42	36	13	6.1	.86
23	11	1.6	.64	.46	.40	.35	1.5	38	34	13	6.1	.94
24	5.3	1.5	.62	.46	.40	.35	1.8	36	32	13	6.7	1.5
25	3.4	1.5	.60	.46	.40	.35	2.1	34	30	12	6.5	1.5
26	3.5	1.5	.58	.46	.40	.35	2.5	34	28	12	6.6	1.4
27	3.9	1.4	.56	.45	.39	.35	3.0	32	27	12	5.9	1.3
28	3.8	1.4	.54	.45	.39	.35	3.6	30	25	11	5.8	1.2
29	4.1	1.3	.52	.45	---	.35	4.3	23	27	11	5.5	1.0
30	3.5	1.3	.52	.45	---	.35	5.2	17	26	12	4.9	.92
31	3.2	---	.52	.45	---	.35	---	18	---	17	3.0	---
TOTAL	152.8	62.1	25.34	14.87	11.72	11.34	34.98	733.5	1008	520	265.3	33.32
MEAN	4.93	2.07	.82	.48	.42	.37	1.17	23.7	33.6	16.8	8.56	1.11
MAX	14	3.1	1.2	.52	.45	.39	5.2	47	63	25	25	1.5
MIN	3.2	1.3	.52	.45	.39	.35	.35	4.1	21	11	3.0	.86
AC-FT	303	123	50	29	23	22	69	1450	2000	1030	526	66

CAL YR 1986 TOTAL 3113.15 MEAN 8.53 MAX 59 MIN .45 AC-FT 6170
WTR YR 1987 TOTAL 2873.27 MEAN 7.87 MAX 63 MIN .35 AC-FT 5700

06746110 JOE WRIGHT CREEK BELOW JOE WRIGHT RESERVOIR, CO

LOCATION.--Lat 40°33'43", long 105°52'09", in SE¼NE¼ sec.24, T.7 N., R.76 W., Larimer County, Hydrologic Unit 10190007, on left bank 500 ft downstream from unnamed tributary, 2,000 ft downstream from Joe Wright Dam, and 3 mi southwest of Chambers Lake.

DRAINAGE AREA.--6.90 mi^2.

PERIOD OF RECORD.--June 1978 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,710 ft, above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 7 to Apr. 24. Records good except for estimated daily discharges, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years, 11.9 ft^3/s; 8,620 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 145 ft^3/s, June 30, 1978, gage height, 2.46 ft; minimum daily, 0.22 ft^3/s, Apr. 14, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 130 ft^3/s at 0930 June 9, gage height, 2.10 ft; minimum daily, 0.37 ft^3/s, Feb. 12-24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	.62	.47	.41	.38	.38	.40	2.1	4.2	34	35	42
2	42	.61	.47	.40	.38	.38	.40	1.9	4.0	28	35	42
3	49	.60	.47	.40	.38	.38	.40	1.4	22	22	35	43
4	49	.60	.47	.40	.38	.38	.41	1.1	42	22	30	42
5	51	.59	.46	.40	.38	.38	.41	1.2	22	22	27	42
6	23	.58	.46	.40	.38	.38	.41	1.6	23	22	27	43
7	1.8	.57	.46	.40	.38	.38	.41	2.0	29	22	27	42
8	1.7	.57	.46	.40	.38	.39	.41	2.5	65	17	27	42
9	1.6	.56	.45	.40	.38	.39	.41	2.8	111	11	27	42
10	1.5	.55	.45	.40	.38	.39	.41	2.8	84	11	27	42
11	1.4	.55	.45	.40	.38	.39	.41	2.7	53	11	26	25
12	1.3	.54	.45	.40	.37	.39	.41	6.5	48	11	25	1.1
13	1.3	.54	.45	.40	.37	.39	.41	14	47	11	26	.99
14	1.2	.53	.44	.40	.37	.39	.41	18	47	14	26	1.0
15	1.1	.53	.44	.39	.37	.39	.41	33	47	7.7	26	1.0
16	1.1	.52	.44	.39	.37	.39	.41	53	47	4.9	25	.99
17	1.0	.52	.44	.39	.37	.39	.42	56	56	13	25	.99
18	.97	.51	.44	.39	.37	.39	.42	22	60	16	25	.99
19	.93	.51	.43	.39	.37	.40	.44	38	68	16	33	.97
20	.89	.50	.43	.39	.37	.40	.47	20	65	16	43	.89
21	1.8	.50	.43	.39	.37	.40	.51	5.0	50	16	43	.98
22	3.3	.50	.43	.39	.37	.40	.55	5.2	44	16	43	.99
23	1.5	.49	.42	.39	.37	.40	.59	4.8	42	14	43	.99
24	.77	.49	.42	.39	.37	.40	.62	4.6	35	12	43	.99
25	.75	.49	.42	.39	.38	.40	.75	4.7	18	12	43	.99
26	.73	.49	.42	.39	.38	.40	.86	4.6	22	14	43	.99
27	.70	.48	.41	.39	.38	.40	1.1	4.3	27	22	42	.99
28	.68	.48	.41	.38	.38	.40	1.4	4.2	41	33	42	.99
29	.65	.48	.41	.38	---	.40	1.5	4.1	63	35	42	.99
30	.64	.48	.41	.38	---	.40	1.7	4.1	54	35	42	.99
31	.63	---	.41	.38	---	.40	---	4.1	---	36	42	---
TOTAL	261.95	15.98	13.62	12.20	10.51	12.15	17.86	332.3	1340.2	576.6	1045	465.81
MEAN	8.45	.53	.44	.39	.38	.39	.60	10.7	44.7	18.6	33.7	15.5
MAX	51	.62	.47	.41	.38	.40	1.7	56	111	36	43	43
MIN	.63	.48	.41	.38	.37	.38	.40	1.1	4.0	4.9	25	.89
AC-FT	520	32	27	24	21	24	35	659	2660	1140	2070	924

CAL YR 1986 TOTAL 5618.91 MEAN 15.4 MAX 117 MIN .30 AC-FT 11150
WTR YR 1987 TOTAL 4104.18 MEAN 11.2 MAX 111 MIN .37 AC-FT 8140

06751490 NORTH FORK CACHE LA POUDRE RIVER AT LIVERMORE, CO.

LOCATION.Lat 40°47'15", long 105°15'06", in SW¼SE¼ sec.32, T.10 N., R.70 W., Larimer County, Hydrologic Unit 10190007, on left bank 60 ft downstream from bridge on Colorado State Highway 200 2.0 mi west of Livermore, 2.9 mi downstream from Stonewall Creek.

DRAINAGE AREA.--539 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1986 to September 1987, May 1929 to September 1931, May 1947 to September 1960, published as near Livermore; records are not considered equivalent.

GAGE.--Water-stage recorder. Elevation of gage is 5,715 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharge: Oct. 1-15, Dec. 8 to Apr. 1. Records good except for estimated daily discharge, which are poor. Natural flow affected by transbasin diversions, storage reservoirs, and irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 119 ft^3/s, May 24, 1987, gage height, 7.83 ft; minimum daily, 2.9 ft^3/s, Sept. 25, 27, 1987

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 119 ft^3/s at 2100 May 24 gage height, 7.83 ft; minimum daily, 2.9 ft^3/s Sept. 25, 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	16	9.2	8.4	8.6	5.8	15	17	54	15	5.3	6.2
2	11	15	7.4	8.4	8.6	5.8	13	14	43	14	5.5	6.0
3	11	14	9.2	8.4	8.6	5.6	14	17	52	13	5.3	5.7
4	11	15	9.2	8.8	8.6	5.5	14	17	47	12	4.7	7.2
5	11	15	9.2	8.8	8.6	5.5	14	14	23	12	4.3	7.6
6	11	15	8.3	8.8	8.6	5.5	15	14	19	13	4.0	7.4
7	11	17	7.8	8.8	7.6	5.5	15	12	11	10	3.9	7.6
8	11	16	8.0	8.8	7.6	5.6	16	11	14	8.6	4.4	6.5
9	11	18	8.5	8.8	7.6	5.6	17	4.3	26	6.2	4.1	5.8
10	11	22	9.0	8.8	7.6	5.8	18	4.2	33	7.0	4.1	5.1
11	11	27	9.0	8.8	7.6	6.2	18	4.1	23	6.6	3.6	4.7
12	11	24	9.0	9.0	7.6	7.6	19	4.0	18	8.5	3.8	4.7
13	11	25	9.0	9.0	7.6	6.2	19	4.0	17	9.8	3.9	4.5
14	11	21	8.6	9.0	7.6	6.0	18	4.8	13	9.5	4.1	4.0
15	11	22	9.0	9.0	7.6	6.0	17	4.8	13	9.0	3.8	3.6
16	11	21	8.6	9.0	7.6	6.0	17	4.1	12	8.7	3.1	3.7
17	12	21	8.0	9.0	7.6	7.0	20	4.1	13	7.7	4.4	3.6
18	13	21	8.0	9.0	7.6	7.6	21	8.3	13	6.9	3.6	3.4
19	13	17	8.0	9.0	7.2	7.4	20	42	14	7.3	3.4	3.3
20	14	9.5	8.0	9.0	6.6	7.2	32	44	15	8.1	3.7	3.2
21	19	7.8	8.0	9.0	6.8	7.2	33	64	14	7.5	4.2	3.1
22	17	7.0	8.0	8.6	6.8	8.6	27	99	14	6.7	4.8	3.2
23	18	5.0	8.4	8.6	6.8	10	21	100	13	6.7	5.2	3.1
24	19	4.3	8.4	8.6	6.8	11	17	96	14	5.7	6.0	3.1
25	18	4.3	8.4	8.6	6.6	11	16	107	14	5.6	6.4	2.9
26	16	9.2	8.4	8.6	6.2	10	13	105	14	5.3	5.8	3.0
27	16	8.7	8.4	8.6	6.2	10	13	95	13	5.8	6.6	2.9
28	17	8.3	8.4	8.6	6.2	10	11	88	12	5.8	7.3	3.0
29	15	7.8	8.4	8.6	---	11	10	62	14	6.2	7.1	3.1
30	13	8.3	8.4	8.6	---	12	11	41	14	6.2	6.4	3.1
31	12	---	8.4	8.6	---	13	---	52	---	5.3	6.8	---
TOTAL	408	442.2	262.6	271.6	209.2	237.2	524	1157.7	609	259.7	149.6	134.3
MEAN	13.2	14.7	8.47	8.76	7.47	7.65	17.5	37.3	20.3	8.38	4.83	4.48
MAX	19	27	9.2	9.0	8.6	13	33	107	54	15	7.3	7.6
MIN	11	4.3	7.4	8.4	6.2	5.5	10	4.0	11	5.3	3.1	2.9
AC-FT	809	877	521	539	415	470	1040	2300	1210	515	297	266

WTR YR 1987 TOTAL 4665.1 MEAN 12.8 MAX 107 MIN 2.9 AC-FT 9250

06751490 NORTH FORK CACHE LA POUDRE RIVER AT LIVERMORE, COLORADO

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 19, 1986, to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SOLIDS, SUSP. TOTAL, RESIDUE AT 110 DEG. C (MG/L)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
NOV												
19...	1040	12	365	9.0	4.5	--	160	43	13	2	188	K25
DEC												
17...	1145	8.0	490	8.1	0.0	--	200	53	17	<1	242	K5
JAN												
14...	1030	9.6	305	8.4	0.0	11.4	120	33	8.8	7	149	K30
MAR												
04...	1030	5.5	295	8.4	2.5	11.3	190	50	15	27	212	140
APR												
01...	0945	15	340	8.8	3.5	12.3	130	36	9.3	1	180	K40
30...	0945	14	370	8.4	11.5	8.6	160	45	12	4	207	180
MAY												
27...	1000	--	--	--	--	--	--	--	--	--	--	--
JUN												
04...	0950	62	165	8.6	12.0	9.3	69	20	4.7	12	107	230
JUL												
01...	1430	16	405	8.6	22.0	8.2	190	53	15	6	242	390
23...	1025	6.8	440	8.4	17.0	8.2	210	59	16	3	264	--
AUG												
27...	1015	6.1	460	8.3	14.5	--	210	58	17	2	259	210

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)
NOV											
19...	13	8.2	<0.01	0.60	<0.10	<0.01	0.01	0.49	0.50	1.1	<0.01
DEC											
17...	16	9.7	<0.01	0.20	0.21	<0.01	0.01	0.69	0.70	0.90	0.01
JAN											
14...	13	4.5	<0.01	0.30	0.26	0.01	0.01	0.59	0.60	0.90	0.01
MAR											
04...	18	12	<0.01	0.10	0.12	0.02	<0.01	1.1	1.1	1.2	0.02
APR											
01...	18	9.4	<0.01	0.10	<0.10	0.03	0.02	0.57	0.60	0.70	0.03
30...	13	10	<0.01	<0.10	<0.10	<0.01	<0.01	0.39	0.40	--	0.05
MAY											
27...	--	--	--	--	--	--	--	--	--	--	--
JUN											
04...	12	2.3	<0.01	<0.10	<0.10	0.01	0.01	0.69	0.70	--	0.04
JUL											
01...	11	7.3	<0.01	<0.10	<0.10	0.05	0.06	1.0	1.1	--	0.05
23...	10	8.2	<0.01	<0.10	<0.10	0.02	<0.01	0.58	0.60	--	0.03
AUG											
27...	13	6.8	<0.01	<0.100	<0.10	0.02	0.02	2.6	2.6	--	0.01

K BASED ON NON-IDEAL COLONY COUNT.

06751490 NORTH FORK CACHE LA POUDRE RIVER AT LIVERMORE, COLORADO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS)	BORON, DIS-SOLVED (UG/L AS B)	CYANIDE DIS-SOLVED (MG/L AS CN)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
NOV									
19...	1040	[illegible]	--	--	1	<10	<10	250	73
DEC									
17...	1145	1	--	--	<1	<10	<10	160	39
JAN									
14...	1030	1	--	--	<1	<10	<10	100	79
MAR									
04...	1030	1	50	--	<1	<10	<10	360	85
APR									
01...	0945	1	--	--	<1	<10	<10	250	41
30...	0945	2	--	--	<1	<10	<10	260	57
MAY									
27...	1000	--	--	--	--	--	--	--	--
JUN									
04...	0950	1	--	--	<1	<10	<10	530	110
JUL									
01...	1430	2	60	<0.01	<1	<10	<10	270	37
23...	1025	2	--	--	<1	30	<10	<10	21
AUG									
27...	1015	1	50	<0.01	1	<10	<10	110	38

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV								
19...	<5	20	12	--	3	<1	<1.0	10
DEC								
17...	<5	10	10	--	<1	<1	<1.0	6
JAN								
14...	<5	<10	10	--	<1	<1	<1.0	9
MAR								
04...	<5	50	14	<0.1	<1	<1	1.0	5
APR								
01...	<5	20	13	--	<1	<1	<1.0	<3
30...	<5	50	23	--	<1	<1	<1.0	8
MAY								
27...	--	--	--	--	--	--	--	--
JUN								
04...	<5	30	12	--	2	1	<1.0	11
JUL								
01...	<5	40	14	<0.1	<1	5	<1.0	11
23...	<5	<10	11	--	3	<1	<1.0	34
AUG								
27...	<5	20	18	<0.1	7	2	<1.0	3

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV				
19...	1040	12	--	--
DEC				
17...	1145	8.0	--	--
JAN				
14...	1030	9.6	--	--
MAR				
04...	1030	5.5	--	--
APR				
01...	0945	15	--	--
30...	0945	14	14	0.53
MAY				
27...	1000	92	14	3.50
JUN				
04...	0950	62	--	--
JUL				
01...	1430	16	19	0.83
23...	1025	6.8	14	0.26
AUG				
27...	1015	6.1	10	0.17

06752258 CACHE LA POUDRE RIVER AT SHIELDS STREET AT FORT COLLINS, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 40°36'11", long 105°05'43", in NE¼SE¼ sec.3, T.7 N., R.69 W., Larimer County, Hydrologic Unit 10190007, at Shields Street bridge, 0.8 mi downstream from Larimer-Weld Canal and 1.0 mi northwest of Fort Collins.

PERIOD OF RECORD.--October 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 22...	1600	5.5	400	8.0	13.0	9.3	200	57
NOV 28...	1030	5.3	400	8.3	4.0	11.3	200	57
DEC 23...	1430	29	350	8.5	1.0	13.7	170	48
JAN 23...	1330	18	450	8.1	0.0	13.7	220	64
FEB 26...	1200	2.2	460	7.9	10.0	10.8	230	64
MAR 30...	1230	2.3	430	8.3	3.0	12.7	230	67
APR 22...	1300	3.0	310	8.6	16.0	10.0	150	44
MAY 19...	1300	366	50	8.2	10.0	11.6	22	7.0
JUN 17...	1430	144	80	8.2	20.0	9.1	--	--
JUL 15...	1500	134	130	8.7	19.0	11.0	43	14
AUG 18...	1030	23	110	8.6	15.0	11.2	49	14
SEP 23...	1100	4.1	380	8.1	15.0	9.2	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT 22...	14	11	0.4	1.9	178	44	4.1	0.50	9.8
NOV 28...	15	--	--	--	163	--	--	0.50	9.0
DEC 23...	11	--	--	--	115	--	--	0.30	9.7
JAN 23...	14	--	--	--	147	--	--	0.40	9.6
FEB 26...	17	--	--	--	185	--	--	0.50	8.3
MAR 30...	16	--	--	--	157	--	--	0.40	7.2
APR 22...	10	--	--	--	109	--	--	--	--
MAY 19...	1.1	--	--	--	18	--	--	--	--
JUN 17...	--	2.0	--	--	--	12	0.70	0.20	7.0
JUL 15...	2.0	--	--	--	38	--	--	--	--
AUG 18...	3.4	--	--	--	42	--	--	--	--
SEP 23...	--	12	--	--	--	52	3.0	0.50	9.9

06752258 CACHE LA POUDRE RIVER AT SHIELDS STREET AT FORT COLLINS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)
OCT 22...	--	249	0.34	3.71	0.67	<0.01	0.01	0.90	<0.01
NOV 28...	--	--	--	--	--	<0.01	0.03	0.20	<0.01
DEC 23...	--	--	--	--	--	<0.01	0.05	0.40	0.01
JAN 23...	--	--	--	--	--	<0.01	0.09	0.70	0.01
FEB 26...	--	--	--	--	--	0.01	--	0.30	<0.01
MAR 30...	--	--	--	--	--	<0.01	0.04	0.40	0.01
APR 22...	--	--	--	--	0.35	<0.01	0.05	--	--
MAY 19...	--	--	--	--	0.03	<0.01	0.03	--	--
JUN 17...	49	--	--	--	--	--	--	--	0.04
JUL 15...	--	--	--	--	0.08	<0.01	0.04	--	--
AUG 18...	--	--	--	--	0.06	<0.01	--	--	--
SEP 23...	266	--	--	--	--	--	--	--	<0.01

DATE	TIME	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
OCT 22...	1600	40	--	--	--	<1	--	<1	--
NOV 28...	1030	--	--	<1	--	<1	--	<1	--
DEC 23...	1430	1600	--	--	--	<1	--	7	--
JAN 23...	1330	1500	<10	--	--	<1	--	29	--
FEB 26...	1200	--	--	<1	--	<1	--	<1	--
MAR 30...	1230	410	<10	--	--	<1	--	20	--
APR 22...	1300	--	--	--	--	<1	--	--	--
MAY 19...	1300	--	--	--	--	<1	--	--	--
JUN 17...	1430	--	30	--	<1	--	<1	2	<1
JUL 15...	1500	--	--	--	--	<1	--	--	--
AUG 18...	1030	--	--	--	--	<1	--	--	--
SEP 23...	1100	--	<10	--	<1	--	<1	8	<1

06752258 CACHE LA POUDRE RIVER AT SHIELDS STREET AT FORT COLLINS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
OCT									
22...	6	--	--	19	<5	--	--	9	--
NOV									
28...	3	--	160	26	<5	--	30	14	<0.10
DEC									
23...	13	--	--	23	<5	--	--	19	--
JAN									
23...	5	--	--	15	<5	--	--	33	--
FEB									
26...	6	--	590	14	<5	--	50	29	<0.10
MAR									
30...	7	--	--	39	<5	--	--	22	--
APR									
22...	3	2	470	--	<5	--	--	--	--
MAY									
19...	4	1	470	--	5	--	--	--	--
JUN									
17...	--	--	--	--	--	<5	20	--	<0.10
JUL									
15...	5	1	250	--	32	--	--	--	--
AUG									
18...	3	2	140	--	<5	--	--	--	--
SEP									
23...	--	--	--	--	--	22	30	--	<0.10

DATE	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT									
22...	--	--	--	--	--	<0.1	--	200	--
NOV									
28...	--	<1	--	<1	--	<0.1	--	10	--
DEC									
23...	--	--	--	--	--	<0.1	--	10	--
JAN									
23...	--	--	--	--	--	<0.1	--	<10	--
FEB									
26...	--	3	--	1	--	<0.1	--	<10	--
MAR									
30...	--	--	--	--	--	<0.1	--	10	--
APR									
22...	--	<1	--	--	--	<0.1	<0.1	--	--
MAY									
19...	--	--	--	--	--	<0.1	<0.1	--	--
JUN									
17...	0.1	--	<1	--	<1	--	--	--	6
JUL									
15...	--	--	--	--	--	<0.5	0.8	--	--
AUG									
18...	--	--	--	--	--	<0.5	<0.5	--	--
SEP									
23...	<0.1	--	<1	--	<1	--	--	--	<3

06752260 CACHE LA POUDRE RIVER AT FORT COLLINS, CO

LOCATION.--Lat 40°35'41", long 105°04'29", in NW¼NW¼ sec.12, T.7 N., R.69 W., Larimer County, Hydrologic Unit 10190007, on right bank 357 ft downstream from College Ave. Bridge, (U.S. Highway 287) in Fort Collins. Prior to May 22, 1987, at site 4,600 ft downstream.

DRAINAGE AREA.--1,127 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1975 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,940 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 22, 1987 at site 4,600 ft downstream, at different datum.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 9, 23, 25, Dec. 9-11, 13-21, May 11, 15-20, July 8, 9, Aug. 20, 21. Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, diversion for municipal supply, diversions upstream from station for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,660 ft³/s, June 21, 1983, gage height, 8.31 ft; maximum gage height, 8.84 ft, Aug. 1, 1976, from floodmarks, site and datum then in use; no flow, Aug. 18, 19, and Sept. 4, 18, 19, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 890 ft³/s at 1230 June 9, gage height, 4.14 ft; no flow, Aug. 18, 19, Sept. 4, 18, 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	8.6	7.8	13	1.4	1.4	4.9	42	387	11	179	2.5
2	6.0	8.8	6.6	18	1.4	1.4	4.6	181	458	8.1	112	3.2
3	6.0	9.0	5.5	5.8	1.4	1.5	3.1	85	465	47	82	3.5
4	6.0	9.2	6.2	18	1.4	1.5	3.1	8.7	471	77	41	.00
5	6.0	9.6	4.0	28	1.4	1.6	5.8	320	502	20	26	.24
6	6.0	9.8	8.2	12	1.3	1.6	5.5	168	393	28	11	38
7	6.0	10	7.0	22	1.3	1.7	2.5	104	218	3.1	36	5.0
8	6.0	10	5.5	32	1.3	1.7	2.0	79	201	20	21	12
9	6.0	11	6.8	13	1.3	1.8	2.3	265	316	56	18	6.4
10	6.0	11	8.0	31	1.3	1.9	30	329	745	30	14	5.3
11	6.0	15	9.0	25	1.3	1.9	17	332	628	28	4.5	6.3
12	6.0	12	10	28	1.3	2.0	12	334	633	71	11	4.7
13	6.0	12	10	28	1.3	2.1	8.7	355	620	107	11	9.5
14	6.0	16	11	22	1.3	2.2	22	656	529	98.3	16	13
15	6.0	14	12	23	1.3	2.2	20	560	332	81	19	4.3
16	6.0	12	13	13	1.3	2.3	17	460	171	41	14	5.2
17	6.0	16	13	10	1.3	2.4	30	390	65	73	.99	.54
18	6.0	13	14	18	1.3	2.5	2.0	310	21	74	.00	.00
19	5.9	15	15	22	1.3	2.6	1.4	267	82	34	.00	1.1
20	6.0	8.2	16	10	1.3	2.7	2.2	410	184	34	22	2.2
21	6.2	9.1	17	11	1.3	2.8	2.7	640	169	62	15	3.5
22	6.4	9.6	18	11	1.3	2.8	1.5	372	24	100	3.6	4.4
23	6.6	7.6	27	13	1.3	3.0	1.4	608	27	135	.40	1.5
24	6.8	6.2	30	18	1.2	3.1	1.7	708	60	129	9.5	.26
25	7.0	6.2	13	16	1.2	3.3	2.0	530	58	116	14	2.2
26	7.2	6.2	18	16	1.2	3.6	1.5	373	87	110	13	3.0
27	7.4	7.4	21	12	1.2	3.7	2.3	294	99	62	11	3.8
28	7.6	7.4	14	20	1.2	3.8	2.9	306	36	61	7.7	.76
29	7.8	7.0	18	10	---	4.1	52	289	58	45	8.4	.00
30	8.0	9.6	18	1.4	---	4.3	45	351	46	41	7.0	1.3
31	8.2	---	19	1.4	---	4.6	---	357	---	117	4.5	---
TOTAL	199.1	306.5	401.6	521.6	36.4	78.1	309.1	10483.7	8085	1919.5	732.59	143.70
MEAN	6.42	10.2	13.0	16.8	1.30	2.52	10.3	338	269	61.9	23.6	4.79
MAX	8.2	16	30	32	1.4	4.6	52	708	745	135	179	38
MIN	5.9	6.2	4.0	1.4	1.2	1.4	1.4	8.7	21	3.1	.00	.00
AC-FT	395	608	797	1030	72	155	613	20790	16040	3810	1450	285

CAL YR 1986 TOTAL 83066.80 MEAN 228 MAX 3020 MIN 4.0 AC-FT 164800
WTR YR 1987 TOTAL 23216.89 MEAN 63.6 MAX 745 MIN .00 AC-FT 46050

06752260 CACHE LA POUDRE RIVER AT FORT COLLINS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT									
19...	1100	3.0	500	8.1	11.0	10.9	240	66	18
NOV									
28...	1200	7.4	520	8.2	4.5	14.2	260	70	20
DEC									
24...	1000	30	360	8.5	0.0	11.6	180	53	12
JAN									
25...	1030	16	460	7.9	0.0	12.4	220	65	15
FEB									
26...	1030	1.2	--	8.1	3.0	9.4	280	77	21
MAR									
23...	1630	3.0	580	8.3	10.0	13.3	250	69	20
APR									
22...	1500	1.4	670	7.6	16.0	13.3	290	80	23
MAY									
19...	1030	267	60	8.6	9.0	12.4	27	8.4	1.4
JUN									
02...	1530	532	105	8.6	15.5	8.6	31	9.3	2.0
19...	0930	28	105	8.2	14.0	9.8	--	--	--
JUL									
22...	1445	120	113	8.9	18.0	8.7	46	14	2.7
AUG									
26...	1510	9.8	148	8.7	17.5	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT									
19...	18	0.5	2.8	202	68	9.6	0.50	8.9	--
NOV									
28...	--	--	--	206	--	--	0.60	9.0	--
DEC									
24...	--	--	--	--	--	--	0.30	8.9	--
JAN									
25...	--	--	--	152	--	--	0.40	8.9	--
FEB									
26...	--	--	--	227	--	--	0.40	10	--
MAR									
23...	--	--	--	199	--	--	0.40	8.7	--
APR									
22...	--	--	--	206	--	--	--	--	--
MAY									
19...	--	--	--	21	--	--	--	--	--
JUN									
02...	--	--	--	29	--	--	--	--	--
19...	2.6	--	--	--	77	9.5	0.20	7.0	53
JUL									
22...	--	--	--	37	--	--	--	--	--
AUG									
26...	4.5	--	--	--	15	1.7	0.20	5.7	81

06752260 CACHE LA POUDRE RIVER AT FORT COLLINS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)
OCT								
19...	310	0.43	2.6	0.01	0.77	0.03	0.40	0.03
NOV								
28...	--	--	--	0.01	--	0.03	0.60	0.05
DEC								
24...	--	--	--	<0.01	--	0.03	0.30	<0.01
JAN								
25...	--	--	--	<0.01	--	0.01	0.80	<0.01
FEB								
26...	--	--	--	0.04	--	0.15	1.8	0.01
MAR								
23...	--	--	--	0.02	--	0.19	--	0.19
APR								
22...	--	--	--	0.02	1.20	0.06	--	--
MAY								
19...	--	--	--	<0.01	0.04	0.03	--	--
JUN								
02...	--	--	--	<0.01	0.04	0.03	--	--
19...	--	--	--	--	--	--	--	0.02
JUL								
22...	--	--	--	<0.01	0.08	<0.01	--	--
AUG								
26...	--	--	--	--	--	--	--	0.02

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)
OCT									
19...	1100	20	--	--	--	<1	--	4	--
NOV									
28...	1200	--	--	<1	--	<1	--	<1	--
DEC									
24...	1000	290	--	--	--	<1	--	10	--
JAN									
25...	1030	370	<10	--	--	<1	--	<1	--
FEB									
26...	1030	--	--	<1	--	<1	--	3	--
MAR									
23...	1630	410	<10	--	--	<1	--	12	--
APR									
22...	1500	--	--	--	--	<1	--	--	--
MAY									
19...	1030	--	--	--	--	<1	--	--	--
JUN									
02...	1530	--	--	--	--	<1	--	--	--
19...	0930	--	20	--	<1	--	<1	2	<1
JUL									
22...	1445	--	--	--	--	<1	--	--	--
AUG									
26...	1510	--	40	--	<1	--	2	<1	<1

06752260 CACHE LA POUDRE RIVER AT FORT COLLINS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
OCT									
19...	4	--	--	75	<5	--	--	26	--
NOV									
28...	5	--	270	38	5	--	30	25	<0.10
DEC									
24...	3	--	--	19	<5	--	--	22	--
JAN									
25...	3	--	--	19	<5	--	--	32	--
FEB									
26...	7	--	620	320	7	--	150	130	<0.10
MAR									
23...	7	--	--	11	<5	--	--	78	--
APR									
22...	32	3	610	--	<5	--	--	--	--
MAY									
19...	4	1	7100	--	<5	--	--	--	--
JUN									
02...	6	4	500	--	<5	--	--	--	--
19...	--	--	--	--	--	<5	20	--	<0.10
JUL									
22...	6	3	250	--	<5	--	--	--	--
AUG									
26...	--	--	--	--	--	<5	<10	--	0.20

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT									
19...	--	--	--	--	--	<0.1	--	150	--
NOV									
28...	--	2	--	<1	--	<0.1	--	10	--
DEC									
24...	--	--	--	--	--	<0.1	--	10	--
JAN									
25...	--	--	--	--	--	<0.1	--	<10	--
FEB									
26...	--	3	--	1	--	<0.1	--	20	--
MAR									
23...	--	--	--	--	--	<0.1	--	20	--
APR									
22...	--	--	--	--	--	<0.1	<0.1	--	--
MAY									
19...	--	--	--	--	--	<0.1	<0.1	--	--
JUN									
02...	--	--	--	--	--	<0.1	<0.1	--	--
19...	0.1	--	<1	--	<1	--	--	--	5
JUL									
22...	--	--	--	--	--	<0.5	<0.5	--	--
AUG									
26...	<0.1	--	4	--	<1	--	--	--	<3

06752270 CACHE LA POUDRE RIVER BELOW FORT COLLINS, CO

LOCATION.--Lat 40°34'01", long 105°01'36", in NW¼NE¼ sec.20, T.7 N., R.68 W., Larimer County, Hydrologic Unit 10190007, 1.4 mi west of Interstate 25 on Prospect Street in Fort Collins.

PERIOD OF RECORD.--January 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT									
19...	0930	9.8	650	8.0	11.0	7.4	290	78	24
NOV									
29...	1300	6.8	730	8.4	6.0	16.2	370	97	31
DEC									
21...	1300	7.6	800	8.3	4.0	13.0	370	99	30
JAN									
24...	1400	4.8	770	7.6	4.0	13.6	410	110	33
FEB									
28...	0900	9.8	750	8.2	3.0	12.0	290	77	23
MAR									
19...	1200	11	580	8.4	10.0	12.6	260	68	21
APR									
15...	1530	6.4	680	8.0	16.0	12.4	350	92	29
MAY									
18...	1300	424	100	7.5	13.0	11.2	39	12	2.3
JUN									
18...	1230	60	300	8.0	20.0	9.8	--	--	--
JUL									
15...	1630	113	320	8.6	21.0	13.8	130	32	11
AUG									
18...	1200	25	580	8.4	20.0	12.0	180	47	15
SEP									
23...	0900	3.7	620	8.2	15.0	8.4	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT									
19...	44	1	4.1	205	140	37	0.70	7.9	460
NOV									
29...	--	--	--	239	--	--	0.70	11	--
DEC									
21...	--	--	--	251	--	--	0.60	10	--
JAN									
24...	--	--	--	278	--	--	0.70	13	--
FEB									
28...	--	--	--	220	--	--	0.70	10	--
MAR									
19...	--	--	--	180	--	--	0.50	7.7	--
APR									
15...	--	--	--	219	--	--	--	--	--
MAY									
18...	--	--	--	29	--	--	--	--	--
JUN									
18...	13	--	--	--	54	7.5	0.30	7.0	--
JUL									
15...	--	--	--	74	--	--	--	--	--
AUG									
18...	--	--	--	133	--	--	--	--	--
SEP									
23...	32	--	--	--	110	16	0.70	9.8	--

06752270 CACHE LA POUDRE RIVER BELOW FORT COLLINS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)
OCT 19...	--	0.63	12.2	2.83	0.27	3.10	0.29	1.1	0.58
NOV 29...	--	--	--	--	0.02	--	0.04	0.50	0.03
DEC 21...	--	--	--	--	0.01	--	0.06	0.80	0.02
JAN 24...	--	--	--	--	0.02	--	0.06	0.50	0.02
FEB 28...	--	--	--	--	0.08	--	1.40	2.4	0.61
MAR 19...	--	--	--	--	0.02	--	0.04	0.90	0.09
APR 15...	--	--	--	1.68	0.02	1.70	0.05	--	--
MAY 18...	--	--	--	0.20	0.02	0.22	0.06	--	--
JUN 18...	179	--	--	--	--	--	--	--	0.01
JUL 15...	--	--	--	0.41	0.05	0.46	0.10	--	--
AUG 18...	--	--	--	0.88	0.22	1.10	0.32	--	--
SEP 23...	430	--	--	--	--	--	--	--	<0.01

DATE	TIME	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
OCT 19...	0930	70	--	--	--	<1	--	<1	--
NOV 29...	1300	--	--	<1	--	<1	--	<1	--
DEC 21...	1300	380	--	--	--	<1	--	8	--
JAN 24...	1400	380	<10	--	--	<1	--	<1	--
FEB 28...	0900	--	--	<1	--	<1	--	<1	--
MAR 19...	1200	420	<10	--	--	<1	--	36	--
APR 15...	1530	--	--	--	--	<1	--	--	--
MAY 18...	1300	--	--	--	--	<1	--	--	--
JUN 18...	1230	--	20	--	<1	--	<1	3	<1
JUL 15...	1630	--	--	--	--	<1	--	--	--
AUG 18...	1200	--	--	--	--	<1	--	--	--
SEP 23...	0900	--	<10	--	<1	--	<1	12	<1

06752270 CACHE LA POUDRE RIVER BELOW FORT COLLINS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
OCT									
19...	4	--	--	48	5	--	--	35	--
NOV									
29...	3	--	270	15	<5	--	30	19	<0.10
DEC									
21...	5	--	--	11	<5	--	--	27	--
JAN									
24...	6	--	--	9	<5	--	--	42	--
FEB									
28...	5	--	320	16	<5	--	50	35	<0.10
MAR									
19...	5	--	--	19	<5	--	--	29	--
APR									
15...	3	3	310	--	<5	--	--	--	--
MAY									
18...	5	1	1100	--	<5	--	--	--	--
JUN									
18...	--	--	--	--	--	6	40	--	<0.10
JUL									
15...	4	<1	210	--	<5	--	--	--	--
AUG									
18...	2	<1	240	--	<5	--	--	--	--
SEP									
23...	--	--	--	--	--	24	50	--	<0.10

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT									
19...	--	--	--	--	--	<0.1	--	80	--
NOV									
29...	--	2	--	3	--	<0.1	--	20	--
DEC									
21...	--	--	--	--	--	<0.1	--	10	--
JAN									
24...	--	--	--	--	--	<0.1	--	10	--
FEB									
28...	--	3	--	2	--	<0.1	--	10	--
MAR									
19...	--	--	--	--	--	<0.1	--	10	--
APR									
15...	--	--	--	--	--	<0.1	<0.1	--	--
MAY									
18...	--	--	--	--	--	<0.1	<0.1	--	--
JUN									
18...	<0.1	--	<1	--	<1	--	--	--	8
JUL									
15...	--	--	--	--	--	<0.5	<0.5	--	--
AUG									
18...	--	--	--	--	--	<0.5	<0.5	--	--
SEP									
23...	<0.1	--	<1	--	2	--	--	--	<3

06752280 CACHE LA POUDRE RIVER ABOVE BOX ELDER CREEK NEAR TIMNATH, CO

LOCATION.--Lat 40°32'56", long 105°00'28", in NW¼NE¼ sec.28, T.7 N., R.68 W., Larimer County, Hydrologic Unit 10190007, on left bank 2,100 ft upstream from Box Elder Creek, 2.0 mi upstream from Interstate Highway 25 bridge and 3.8 mi southeast of intersection of College Avenue and Prospect Street in Fort Collins.

DRAINAGE AREA.--1,245 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,860 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 4-29, Jan. 8 to Feb. 3, Apr. 29 to May 20, June 7-18, July 26 to Aug. 12. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, diversion for municipal supply, diversions upstream from station for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,810 ft^3/s, June 21, 1983, gage height, 8.02 ft; minimum daily, 1.6 ft^3/s, Sept. 29, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 865 ft^3/s at 0530 May 23, gage height. 4.43 ft; minimum daily, 3.0 ft^3/s, Oct. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	13	15	12	12	17	8.7	6.1	339	4.4	3.9	3.5
2	3.0	10	13	12	13	16	9.4	6.1	442	4.9	4.0	3.8
3	3.1	11	11	12	13	15	11	6.1	467	4.1	4.0	3.7
4	3.1	11	11	12	13	14	9.5	6.1	467	6.0	4.1	3.8
5	3.8	11	12	12	13	15	9.4	6.1	497	4.4	4.1	4.1
6	3.3	11	12	12	13	15	9.4	6.1	404	4.6	4.2	4.9
7	3.5	11	12	12	13	15	9.4	6.1	180	4.4	4.2	4.9
8	3.4	11	12	12	13	16	9.4	6.1	180	4.4	4.3	4.1
9	3.5	11	12	12	13	22	9.4	6.1	600	4.4	4.3	4.1
10	3.8	11	11	12	13	18	11	6.1	500	5.4	4.4	3.9
11	4.4	11	11	12	13	17	12	6.1	430	6.0	4.4	4.1
12	4.4	11	11	12	14	16	12	6.1	350	9.0	4.4	4.1
13	4.4	11	11	12	15	15	11	6.1	300	23	4.4	4.1
14	4.9	11	11	12	13	16	11	15	325	11	4.9	4.1
15	9.0	11	11	12	18	16	12	35	344	8.0	4.9	4.9
16	9.4	11	12	12	15	24	12	80	150	4.9	5.2	4.6
17	6.7	11	12	12	14	32	10	190	40	5.2	4.9	4.1
18	4.9	11	13	12	14	26	10	400	12	5.5	4.9	4.4
19	4.9	11	13	12	15	18	9.5	450	16	3.8	4.9	4.4
20	5.5	11	13	12	22	18	15	465	66	3.8	4.9	4.4
21	9.4	11	12	12	17	21	8.8	473	41	3.8	4.9	4.9
22	11	11	12	12	13	15	8.0	371	6.1	4.1	4.2	4.6
23	10	11	12	12	13	14	7.3	676	4.1	10	4.1	4.9
24	10	11	12	12	13	12	6.7	731	3.9	8.7	4.1	4.9
25	9.5	11	12	12	13	9.5	6.7	603	4.1	7.3	4.1	4.4
26	9.4	11	12	12	15	9.4	6.7	405	5.7	5.0	3.8	4.3
27	8.7	11	12	12	15	9.4	6.7	345	22	3.7	3.8	4.4
28	8.4	11	12	12	15	8.7	6.1	291	3.8	3.4	3.7	5.7
29	8.7	11	12	12	---	10	6.1	237	3.8	3.3	3.5	4.9
30	8.7	14	12	12	---	9.5	6.1	308	4.4	3.8	3.5	4.4
31	8.7	---	12	12	---	8.7	---	329	---	3.9	3.5	---
TOTAL	194.8	334	371	372	396	488.2	280.3	6483.3	6207.9	184.2	132.5	131.4
MEAN	6.28	11.1	12.0	12.0	14.1	15.7	9.34	209	207	5.94	4.27	4.38
MAX	11	14	15	12	22	32	15	731	600	23	5.2	5.7
MIN	3.0	10	11	12	12	8.7	6.1	6.1	3.8	3.3	3.5	3.5
AC-FT	386	662	736	738	785	968	556	12860	12310	365	263	261

CAL YR 1986 TOTAL 83974.5 MEAN 230 MAX 3100 MIN 1.6 AC-FT 166600
WTR YR 1987 TOTAL 15575.6 MEAN 42.7 MAX 731 MIN 3.0 AC-FT 30890

06752280 CACHE LA POUDRE RIVER ABOVE BOX ELDER CREEK NEAR TIMNATH, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT 18...	1030	4.9	1900	8.1	11.0	8.0	920	230	83
NOV 29...	1100	11	1350	8.3	5.0	12.3	700	180	60
DEC 21...	1100	12	1300	8.2	0.0	13.0	650	170	55
JAN 22...	1500	12	1400	8.2	0.0	14.3	730	190	61
FEB 28...	1145	14	1200	8.3	1.0	13.4	500	130	43
MAR 19...	0930	17	1100	8.4	6.0	10.0	510	130	44
APR 15...	1300	12	1300	8.2	14.0	9.2	610	150	56
MAY 18...	1030	407	115	8.6	10.0	10.6	47	14	3.0
JUN 18...	1030	17	650	7.9	19.0	6.8	--	--	--
JUL 12...	1600	8.8	1600	8.8	20.0	9.2	780	190	75
AUG 13...	1300	5.1	1600	8.2	24.0	8.4	1000	260	86
SEP 25...	0930	4.9	1600	8.2	16.0	6.5	--	--	--

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
OCT 18...	100	1	6.4	78	1000	29	1.0	8.9	1510
NOV 29...	--	--	--	236	--	--	0.90	8.0	--
DEC 21...	--	--	--	234	--	--	0.80	8.6	--
JAN 22...	--	--	--	261	--	--	0.90	12	--
FEB 28...	--	--	--	211	--	--	0.80	9.8	--
MAR 19...	--	--	--	376	--	--	0.60	7.9	--
APR 15...	--	--	--	203	--	--	--	--	--
MAY 18...	--	--	--	30	--	--	--	--	--
JUN 18...	30	--	--	--	240	14	0.40	7.7	--
JUL 12...	--	--	--	182	--	--	--	--	--
AUG 13...	--	--	--	163	--	--	--	--	--
SEP 25...	100	--	--	--	1000	28	1.0	9.0	--

06752280 CACHE LA POUDRE RIVER ABOVE BOX ELDER CREEK NEAR TIMNATH, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)
OCT									
18...	--	2.05	20.1	1.76	0.04	1.80	0.15	0.90	0.03
NOV									
29...	--	--	--	--	0.03	--	0.17	0.80	0.04
DEC									
21...	--	--	--	--	0.01	--	0.21	1.3	0.05
JAN									
22...	--	--	--	--	0.02	--	0.34	0.90	0.07
FEB									
28...	--	--	--	--	0.06	--	1.20	2.2	0.51
MAR									
19...	--	--	--	--	0.03	--	0.15	1.0	0.16
APR									
15...	--	--	--	1.37	0.03	1.40	0.24	--	--
MAY									
18...	--	--	--	0.18	0.01	0.19	0.08	--	--
JUN									
18...	480	--	--	--	--	--	--	--	0.10
JUL									
12...	--	--	--	0.95	0.05	1.00	0.31	--	--
AUG									
13...	--	--	--	1.05	0.05	1.10	0.20	--	--
SEP									
25...	1730	--	--	--	--	--	--	--	<0.01

DATE	TIME	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
OCT									
18...	1030	180	--	--	--	<1	--	<1	--
NOV									
29...	1100	--	--	<1	--	<1	--	<1	--
DEC									
21...	1100	50	--	--	--	<1	--	7	--
JAN									
22...	1500	220	<10	--	--	<1	--	<1	--
FEB									
28...	1145	--	--	<1	--	<1	--	<1	--
MAR									
19...	0930	200	<10	--	--	<1	--	20	--
APR									
15...	1300	--	--	--	--	<1	--	--	--
MAY									
18...	1030	--	--	--	--	<1	--	--	--
JUN									
18...	1030	--	<10	--	<1	--	1	2	<1
JUL									
12...	1600	--	--	--	--	<1	--	--	--
AUG									
13...	1300	--	--	--	--	<1	--	--	--
SEP									
25...	0930	--	<10	--	<1	--	<1	7	<1

06752280 CACHE LA POUDRE RIVER ABOVE BOX ELDER CREEK NEAR TIMNATH, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
OCT									
18...	4	--	--	20	<5	--	--	140	--
NOV									
29...	3	--	200	21	<5	--	60	48	<0.10
DEC									
21...	4	--	--	12	<5	--	--	43	--
JAN									
22...	3	--	--	9	<5	--	--	76	--
FEB									
28...	6	--	220	14	<5	--	60	41	<0.10
MAR									
19...	4	--	--	44	<5	--	--	75	--
APR									
15...	5	3	1600	--	<5	--	--	--	--
MAY									
18...	7	2	1700	--	<5	--	--	--	--
JUN									
18...	--	--	--	--	--	5	80	--	<0.10
JUL									
12...	3	<1	380	--	32	--	--	--	--
AUG									
13...	4	1	400	--	<5	--	--	--	--
SEP									
25...	--	--	--	--	--	<5	100	--	<0.10

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT									
18...	--	--	--	--	--	0.2	--	80	--
NOV									
29...	--	1	--	6	--	<0.1	--	20	--
DEC									
21...	--	--	--	--	--	<0.1	--	10	--
JAN									
22...	--	--	--	--	--	<0.1	--	10	--
FEB									
28...	--	3	--	4	--	<0.1	--	10	--
MAR									
19...	--	--	--	--	--	<0.1	--	10	--
APR									
15...	--	--	--	--	--	<0.1	<0.1	--	--
MAY									
18...	--	--	--	--	--	<0.1	0.2	--	--
JUN									
18...	<0.1	--	<1	--	2	--	--	--	16
JUL									
12...	--	--	--	--	--	<0.5	<0.5	--	--
AUG									
13...	--	--	--	--	--	<0.5	<0.5	--	--
SEP									
25...	<0.1	--	1	--	9	--	--	--	20

06752500 CACHE LA POUDRE RIVER NEAR GREELEY, CO

LOCATION.--Lat 40°25'04", long 104°38'22", in NW¼ sec.11, T.5 N., R.65 W., Weld County, Hydrologic Unit 10190007, on right bank 25 ft downstream from highway bridge, 2.9 mi east of courthouse in Greeley, and 3.0 mi upstream from mouth.

DRAINAGE AREA.--1,877 mi².

PERIOD OF RECORD.--Streamflow records, March to October 1903, August to November 1904, January 1914 to December 1919, June 1924 to current year. Monthly discharge only for some periods, published in WSP 1310. Water-quality data available, November 1951 to September 1952, August 1954 to August 1956, December 1963 to September 1966, October 1967 to September 1968, October 1970 to September 1982.

REVISED RECORDS.--WSP 1440: 1935, 1938(M), 1942-43. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,610 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1710 or 1730 for history of changes prior to Dec. 14, 1933.

REMARKS.--Estimated daily discharges: Oct. 3 to May 1, and June 17-19. Records good. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, diversion for municipal supply, diversions upstream from station for irrigation of about 250,000 acres, and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--68 years (water years 1915-19, 1925-87), 134 ft³/s; 97,080 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,360 ft³/s, June 14, 1983; gage height, 8.92 ft; maximum gage height, 8.95 ft, June 22, 1983; minimum daily discharge, 0.8 ft³/s, Oct. 3, 1946.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,470 ft³/s at 2015 May 23, gage height, 5.08 ft; minimum daily, 18 ft³/s, July 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	165	140	264	133	119	131	33	483	48	23	35
2	130	157	134	262	131	120	126	32	467	39	22	27
3	147	153	134	136	138	119	131	44	491	37	23	20
4	146	151	131	112	133	119	123	48	435	27	25	16
5	146	148	129	115	133	120	119	35	471	29	22	18
6	142	146	124	117	137	123	119	37	471	26	21	19
7	133	144	129	117	133	122	115	35	264	31	22	22
8	130	141	133	117	124	129	120	36	144	25	28	34
9	126	139	134	107	125	142	117	30	347	24	20	38
10	130	136	129	97	128	162	117	34	856	21	44	42
11	157	134	126	103	132	269	90	31	725	22	31	46
12	144	134	131	108	130	289	50	27	654	39	22	52
13	137	134	133	112	130	289	50	27	614	66	23	44
14	137	134	131	109	132	277	50	24	543	63	26	38
15	137	134	131	96	135	275	50	25	459	57	28	53
16	140	134	133	78	132	291	50	34	195	44	27	46
17	142	134	131	93	126	294	46	54	85	35	21	45
18	137	134	199	96	124	296	43	82	60	71	27	56
19	137	137	236	104	110	237	40	167	40	38	29	51
20	133	137	229	94	121	183	37	470	30	29	24	43
21	130	147	231	97	113	162	34	654	25	25	27	40
22	133	145	229	99	108	158	32	542	21	23	32	39
23	147	143	229	104	106	152	30	917	18	22	36	35
24	144	137	227	107	107	148	28	1050	19	18	43	36
25	133	141	213	107	108	141	28	1050	30	20	52	31
26	128	141	213	109	108	141	29	750	26	18	64	30
27	131	134	211	117	112	139	29	650	27	20	70	31
28	138	134	211	120	114	131	30	609	34	20	71	28
29	137	133	225	128	---	132	31	543	39	28	58	32
30	137	140	259	130	---	132	32	519	53	21	43	32
31	138	---	264	125	---	131	---	596	---	22	42	---
TOTAL	4240	4221	5409	3680	3463	5592	2027	9185	8126	1008	1046	1079
MEAN	137	141	174	119	124	180	67.6	296	271	32.5	33.7	36.0
MAX	157	165	264	264	138	296	131	1050	856	71	71	56
MIN	113	133	124	78	106	119	28	24	18	18	20	16
AC-FT	8410	8370	10730	7300	6870	11090	4020	18220	16120	2000	2070	2140

CAL YR 1986 TOTAL 104598 MEAN 287 MAX 3170 MIN 27 AC-FT 207500
WTR YR 1987 TOTAL 49076 MEAN 134 MAX 1050 MIN 16 AC-FT 97340

06756995 SOUTH PLATTE RIVER AT MASTERS, CO

LOCATION.--Lat 40°18'22", long 104°14'40", in SE¼ sec.18, T.4 N., R.61 W., Weld County, Hydrologic Unit 10190003, on right bank at bridge on Weld County Road 87, 1.0 mi north of U.S. Highway 34 at Masters.

DRAINAGE AREA.--12,175 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1976 to current year.

REVISED RECORDS.--WRD CO-86-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,450 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 12-24, and Apr. 10-14. Records fair. Natural flow of stream affected by transmountain, transbasin, and storage diversions, power developments, ground-water withdrawals and diversions for irrigation, and return flows from irrigated areas.

AVERAGE DISCHARGE.--10 years (water years 1978-87), 1,160 ft^3/s; 840,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,100 ft^3/s, May 2, 1980, gage height, 10.06 ft; minimum daily, 3.5 ft^3/s, Mar. 16, 18, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,720 ft^3/s at 2130 May 25, gage height, 7.78 ft; minimum daily, 159 ft^3/s, Apr. 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1070	844	386	572	614	724	364	934	5100	2610	305	776
2	978	1340	392	565	450	819	406	1160	4380	1050	315	661
3	855	1370	431	513	428	787	407	1380	3300	452	339	543
4	636	1230	392	335	442	779	254	2130	2710	285	301	555
5	677	1120	598	230	434	787	229	2880	2490	271	283	561
6	635	1040	570	230	403	811	275	2800	2460	415	269	644
7	471	1040	403	248	417	811	189	2920	2250	520	274	645
8	417	1130	431	276	431	779	159	2990	1800	612	375	610
9	395	1060	454	276	398	844	165	3180	1780	562	459	630
10	411	830	460	248	384	1340	165	3180	5620	501	443	582
11	531	878	740	246	392	1320	250	3130	6410	396	443	548
12	655	985	823	258	395	1380	400	2840	5240	350	361	568
13	1010	959	706	274	376	1390	700	2610	4100	468	350	515
14	750	1010	638	327	433	1320	1220	2500	3330	936	402	370
15	612	1080	645	457	472	1290	824	2310	2370	769	436	392
16	520	1010	638	812	518	1380	588	2430	2200	594	448	521
17	513	959	667	811	554	1490	552	2110	1360	585	371	644
18	506	906	649	795	535	1610	640	2290	842	666	330	582
19	494	854	700	874	525	1530	785	3280	622	693	261	673
20	500	658	735	862	554	1450	957	3740	801	540	212	652
21	512	527	751	820	640	1390	1310	5040	665	426	208	511
22	591	525	720	783	645	1360	1580	6070	600	319	243	431
23	620	525	646	803	610	1200	1560	6990	465	281	458	423
24	641	522	624	861	592	1040	1460	7420	506	240	1130	328
25	777	491	569	875	634	843	1410	8520	494	218	989	284
26	803	472	542	896	663	532	1420	8020	538	225	1480	254
27	755	431	522	896	875	446	1340	7210	476	218	1960	230
28	731	387	528	1030	786	314	1180	6790	395	224	1920	205
29	770	365	529	889	---	211	998	6250	348	220	1250	178
30	701	376	535	721	---	221	1160	6500	1070	231	1000	188
31	746	---	575	689	---	292	---	4940	---	244	885	---
TOTAL	20283	24924	17999	18472	14600	30490	22947	124544	64722	16121	18500	14704
MEAN	654	831	581	596	521	984	765	4018	2157	520	597	490
MAX	1070	1370	823	1030	875	1610	1580	8520	6410	2610	1960	776
MIN	395	365	386	230	376	211	159	934	348	218	208	178
AC-FT	40230	49440	35700	36640	28960	60480	45520	247000	128400	31980	36690	29170

CAL YR 1986 TOTAL 329649 MEAN 903 MAX 7230 MIN 21 AC-FT 653900
WTR YR 1987 TOTAL 388306 MEAN 1064 MAX 8520 MIN 159 AC-FT 770200

06756995 SOUTH PLATTE RIVER AT MASTERS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to September 1979. March 1982 to Current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)
OCT							
15...	1300	622	1390	8.3	13.0	8.0	8.8
NOV							
24...	1400	533	1410	8.2	7.5	15	10.3
DEC							
30...	1300	547	1360	8.0	3.5	5.1	10.9
JAN							
27...	1330	1000	1370	8.0	5.5	18	9.7
FEB							
23...	1330	626	1460	8.0	7.5	3.6	10.0
MAR							
25...	1430	945	1330	8.1	7.5	7.5	8.8
APR							
21...	1420	1280	960	8.1	13.0	56	8.4
MAY							
18...	1245	2180	659	8.0	19.5	55	7.7
JUN							
29...	1400	390	1320	8.2	17.0	8.9	8.5
JUL							
28...	1315	240	1480	8.4	26.0	8.0	9.7
AUG							
25...	1500	1090	1150	7.9	23.0	58	7.0
SEP							
23...	1245	449	1390	8.3	17.5	5.3	8.2

DATE	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT							
15...	100	K56	250	5.40	<0.20	--	0.76
NOV							
24...	250	100	320	6.90	2.7	9.6	1.80
DEC							
30...	--	--	--	6.00	2.9	8.9	0.95
JAN							
27...	670	200	530	6.00	4.7	11	2.60
FEB							
23...	80	K16	--	6.10	2.9	9.0	1.20
MAR							
25...	230	72	48	5.50	0.40	5.9	1.40
APR							
21...	2900	390	520	4.40	2.8	7.2	1.80
MAY							
18...	7200	600	1500	2.60	2.1	4.7	0.88
JUN							
29...	820	210	350	3.30	1.1	4.4	0.04
JUL							
28...	170	120	170	3.30	1.2	4.5	0.30
AUG							
25...	620	K180	650	4.00	1.8	5.8	0.89
SEP							
23...	160	K35	K55	5.00	0.80	5.8	0.68

K BASED ON NON-IDEAL COLONY COUNT.

06758500 SOUTH PLATTE RIVER NEAR WELDONA, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1967 to September 1968, October 1971 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 15...	1500	758	1420	8.4	14.0	9.0	510	120
NOV 26...	1200	617	1450	8.2	4.5	10.7	540	130
DEC 31...	1230	689	1380	8.2	3.5	11.1	510	120
JAN 28...	1145	1080	1370	8.2	3.0	10.4	460	110
FEB 25...	1115	647	1360	7.9	3.0	10.8	500	120
MAR 26...	1145	860	1390	8.1	8.5	9.5	470	110
APR 22...	1230	1540	984	8.2	13.0	9.0	310	73
MAY 20...	1100	2650	667	7.9	16.5	8.2	210	53
JUN 30...	1155	363	1410	8.3	18.0	8.4	530	130
JUL 29...	1110	215	1450	8.7	25.0	9.4	480	100
AUG 27...	1100	1130	1170	8.1	19.0	7.5	420	98
SEP 24...	1100	464	1460	8.2	16.5	8.3	540	130

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 15...	52	120	2	7.3	227	470	59	1.0
NOV 26...	52	130	3	6.9	229	480	63	1.1
DEC 31...	51	120	2	6.8	227	450	65	1.0
JAN 28...	46	130	3	7.2	202	410	78	0.90
FEB 25...	48	130	3	6.3	222	430	73	1.1
MAR 26...	48	120	2	6.0	216	440	69	1.0
APR 22...	31	83	2	6.2	154	260	46	0.80
MAY 20...	20	53	2	4.2	112	160	31	0.80
JUN 30...	49	130	3	6.8	221	450	62	0.90
JUL 29...	55	140	3	7.7	171	480	70	0.90
AUG 27...	42	110	2	6.3	193	320	50	0.90
SEP 24...	52	130	3	6.7	244	470	71	1.1

06758500 SOUTH PLATTE RIVER NEAR WELDONA, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ALGAL GROWTH POTEN-TIAL, BOTTLE TEST (MG/L)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 15...	12	980	1.3	2000	4.80	<0.01	--	10	11
NOV 26...	13	1000	1.4	1690	5.50	0.75	--	9	22
DEC 31...	13	960	1.3	1790	5.40	0.98	--	12	22
JAN 28...	13	920	1.2	2670	6.00	0.02	--	28	29
FEB 25...	12	950	1.3	1670	6.10	0.97	--	42	24
MAR 26...	12	940	1.3	2170	5.50	0.97	--	10	11
APR 22...	10	600	0.82	2500	4.80	0.81	14	50	19
MAY 20...	11	400	0.54	2860	2.10	0.33	65	200	20
JUN 30...	14	980	1.3	956	3.10	0.23	14	5	20
JUL 29...	7.7	960	1.3	560	0.84	0.17	25	<3	14
AUG 27...	12	750	1.0	2300	3.60	0.42	96	10	8
SEP 24...	14	1000	1.4	1280	4.50	0.48	17	<9	21

06759100 BIJOU CREEK NEAR FORT MORGAN, CO

LOCATION.--Lat 40°16'58", long 103°52'31", in NW¼SE¼ sec.28, T.4 N., R.58 W., Morgan County, Hydrologic Unit 10190011, on left bank 1,000 ft downstream from bridge on State Highway 144, 0.8 mi upstream from South Platte River, and 4.0 mi northwest of Fort Morgan.

DRAINAGE AREA.--1,500 mi^2.

PERIOD OF RECORD.--Streamflow records, December 1976 to September 1987 (discontinued). Water quality data available October 1976 to September 1979.

GAGE.--Water-stage recorder. Elevation of gage is 4,302 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Natural flow of stream affected by delivery of stored water from Bijou No. 2 reservoir to South Platte River past the gage, and waste flows from Fort Morgan Canal, which crosses 1.5 mi upstream. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,200 ft^3/s, July 26, 1977, gage height, 6.01 ft, from floodmark, from rating curve extended above 140 ft^3/s, on basis of slope-area measurement of peak flow; minimum daily, 4.8 ft^3/s, Oct. 2-4, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 148 ft^3/s at 2100 June 13, gage height, 1.76 ft; minimum daily, 9.0 ft^3/s, Sept. 9, 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	39	11	9.2	12	21	21	11	18	13	13	11
2	11	40	11	11	13	22	21	11	18	13	10	11
3	14	44	10	12	13	47	22	12	17	12	9.8	10
4	13	46	10	13	11	77	17	13	18	13	9.8	10
5	18	44	11	12	11	81	14	14	19	12	9.8	10
6	18	44	11	12	12	89	14	15	17	12	12	10
7	18	45	10	12	13	95	14	13	19	12	13	10
8	16	43	12	12	12	88	15	13	17	12	17	9.8
9	15	43	11	11	12	90	14	13	17	12	36	9.0
10	16	42	14	11	13	40	14	13	19	12	43	9.0
11	16	43	15	11	13	29	14	14	19	12	44	11
12	16	43	14	10	13	23	14	14	18	13	28	12
13	20	44	15	11	15	20	14	26	49	12	28	12
14	27	34	12	11	15	21	14	16	47	11	37	25
15	27	17	11	12	13	19	14	17	16	11	41	18
16	28	17	10	11	14	19	14	15	14	12	40	11
17	30	17	12	13	12	17	14	16	12	12	44	10
18	29	13	12	13	13	16	13	15	12	13	41	9.8
19	32	12	12	13	14	15	13	15	12	12	39	9.8
20	32	12	13	12	13	14	13	16	12	12	34	11
21	33	12	13	13	13	13	14	18	12	12	27	11
22	31	12	12	14	13	14	13	20	12	12	20	12
23	32	12	13	13	13	13	15	19	13	12	15	12
24	31	12	12	14	14	14	14	23	13	10	13	11
25	30	11	12	14	14	13	13	59	14	10	13	10
26	30	10	12	13	14	32	13	27	15	10	15	12
27	30	10	12	14	18	48	12	24	15	12	14	12
28	35	11	12	16	19	15	12	22	16	13	11	11
29	38	11	13	20	---	12	12	19	16	13	12	11
30	40	11	12	18	---	15	12	18	14	13	11	12
31	39	---	10	14	---	18	---	19	---	12	11	---
TOTAL	775	794	370	395.2	375	1050	433	562	530	372	711.4	343.4
MEAN	25.0	26.5	11.9	12.7	13.4	33.9	14.4	18.1	17.7	12.0	22.9	11.4
MAX	40	46	15	20	19	95	22	59	49	13	44	25
MIN	10	10	10	9.2	11	12	12	11	12	10	9.8	9.0
AC-FT	1540	1570	734	784	744	2080	859	1110	1050	738	1410	681

CAL YR 1986 TOTAL 6156.9 MEAN 16.9 MAX 75 MIN 5.3 AC-FT 12210
WTR YR 1987 TOTAL 6711.0 MEAN 18.4 MAX 95 MIN 9.0 AC-FT 13310

06764000 SOUTH PLATTE RIVER AT JULESBURG, CO--Continued
(Irrigation network station)
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1945 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1945 to September 1981 (discontinued).
WATER TEMPERATURES: Water years 1945-49, October 1950 to September 1981 (discontinued).

INSTRUMENTATION.--Water-quality monitor from July 1973 to September 1979.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,270 micromhos Jan. 12, 1971; minimum daily, 348 micromhos Aug. 15, 1968.
WATER TEMPERATURES: Maximum, 36.0°C July 17, 19, 1977, July 16, 1978; minimum, freezing point on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
NOV 25...	1400	618	1820	8.5	3.5	21	11.4	K24	70	680	170
FEB 24...	0945	762	1800	8.5	2.5	26	12.0	K14	K40	670	170
MAY 19...	1000	1410	1100	8.3	19.0	220	7.8	K6400	8200	350	88
AUG 26...	0900	90	1850	8.0	17.0	20	8.1	--	K3200	650	170

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WHOLE WATER TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
NOV 25...	61	170	3	12	251	670	78	0.80	20	1440	1300
FEB 24...	60	170	3	12	263	690	86	0.90	20	1430	1400
MAY 19...	31	94	2	8.2	144	360	47	0.80	14	733	730
AUG 26...	55	170	3	15	199	690	87	0.70	24	1450	1300

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)
NOV 25...	2.0	2400	4.00	0.11	0.10	1.1	1.2	0.01	0.27	0.41	0.30
FEB 24...	1.9	2940	4.80	0.08	0.08	1.2	1.3	0.02	0.36	0.52	0.39
MAY 19...	1.0	2790	2.60	0.07	0.06	2.9	3.0	<0.01	0.12	1.10	0.32
AUG 26...	2.0	351	1.60	0.11	0.10	1.4	1.5	0.04	0.03	0.20	0.06

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
NOV 25...	1400	<10	3	48	<0.5	<1	<1	<3	4	4	<5
FEB 24...	0945	<10	10	46	1	<1	<1	<3	2	6	<5
MAY 19...	1000	40	3	44	<0.5	<1	<1	<3	6	7	7
AUG 26...	0900	10	2	75	<0.5	2	<1	<3	1	7	<5

K. BASED ON NON-IDEAL COLONY COUNT.

06764000 SOUTH PLATTE RIVER AT JULESBURG, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV 25...	63	<1	<0.1	<10	3	4	<1	1800	<6	19
FEB 24...	58	2	<0.1	<10	<1	4	<1	1700	<6	11
MAY 19...	35	<1	<0.1	<10	<1	2	<1	950	<6	8
AUG 26...	46	15	0.1	<10	3	2	<1	1700	<6	4

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L)
NOV 25...	1400	75	4.1	21	12	14	11	0.08	34
FEB 24...	0945	--	--	--	--	--	--	--	--
MAY 19...	1000	27	5.3	16	6.1	11	5.6	0.06	18
AUG 26...	0900	--	--	--	--	--	--	--	--

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 25...	1400	618	213	355
FEB 24...	0945	762	84	173
MAY 19...	1000	1410	882	3350
AUG 26...	0900	90	92	22

06823000 NORTH FORK REPUBLICAN RIVER AT COLORADO-NEBRASKA STATE LINE

LOCATION.--Lat 40°04'10", long 102°03'05", in sec.10, T.1 N., R.42 W., Dundy County, NE, Hydrologic Unit 10250002, on right bank 100 ft east of Colorado-Nebraska State line and 9.5 mi upstream from confluence with Arikaree River.

DRAINAGE AREA.--1,360 mi², approximately, of which about 100 mi² contribute directly to surface runoff.

PERIOD OF RECORD.--October 1930 to current year. Prior to October 1932, published as North Fork of Arikaree River at Colorado-Nebraska State line. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1240: 1947(M). WSP 1390: 1934. WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Steel-piling control since January 1965. Datum of gage is 3,336.09 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 17, 1934, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Nov. 23 to Dec. 3, Dec. 10, 11, Jan. 16-18, Feb. 28, and Mar. 28-31. Records good except for periods of estimated record, which are fair. Natural flow affected by diversion in Pioneer Canal for irrigation of about 2,700 acres in Colorado and Nebraska.

AVERAGE DISCHARGE.--57 years, 47.0 ft³/s; 34,050 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,110 ft³/s, Apr. 28, 1947, gage height, 5.92 ft, from rating curve extended above 800 ft³/s, on basis of slope-area measurement of peak flow; no flow, Aug. 25, 26, 1932.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 130 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 5	1530	*110	*1.40				

Minimum daily, 6.0 ft³/s, July 20, 25-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	53	52	44	53	60	67	48	64	15	7.2	26
2	23	54	50	42	53	64	66	49	56	36	7.8	29
3	27	55	48	41	53	64	63	60	38	45	7.8	29
4	25	54	53	40	53	61	62	90	34	56	7.8	27
5	23	55	55	40	54	56	61	104	33	60	7.8	28
6	29	55	55	41	55	51	60	91	31	57	7.4	28
7	32	55	50	46	55	49	59	79	28	45	9.5	27
8	31	54	49	50	55	55	59	49	23	25	9.8	25
9	31	54	48	55	54	55	57	21	31	26	11	24
10	33	55	47	55	54	56	57	17	39	20	7.1	24
11	33	54	52	54	54	57	57	24	50	15	6.5	20
12	40	55	49	55	54	56	65	24	39	9.9	6.7	15
13	41	56	47	56	52	55	70	47	30	8.6	7.4	13
14	44	54	47	56	48	56	62	51	28	9.1	7.6	12
15	42	55	47	55	50	57	60	38	24	8.6	7.7	12
16	40	56	47	52	51	62	59	12	11	7.9	7.0	12
17	40	55	46	47	48	68	57	11	9.4	7.8	7.7	12
18	38	54	44	49	46	69	56	18	9.7	8.4	7.7	13
19	38	53	43	51	51	71	55	51	15	6.6	7.5	15
20	37	51	43	51	53	68	54	54	24	6.0	8.2	14
21	39	52	43	50	54	63	56	73	27	6.6	8.5	12
22	44	52	42	48	50	62	54	73	23	6.6	7.8	13
23	50	52	44	54	52	63	53	69	21	6.6	11	13
24	47	52	53	52	50	62	52	69	21	7.2	13	13
25	48	54	53	57	51	62	52	74	25	6.0	21	13
26	48	52	53	56	53	64	52	72	26	6.0	26	13
27	50	52	53	57	71	66	52	69	26	6.0	26	14
28	49	56	53	57	64	60	50	65	25	6.6	28	17
29	49	58	52	54	---	54	49	69	14	7.2	29	29
30	51	56	49	51	---	50	48	73	18	7.2	28	30
31	52	---	45	52	---	60	---	66	---	7.2	29	---
TOTAL	1195	1623	1512	1568	1491	1856	1724	1710	843.1	546.1	384.5	572
MEAN	38.5	54.1	48.8	50.6	53.2	59.9	57.5	55.2	28.1	17.6	12.4	19.1
MAX	52	58	55	57	71	71	70	104	64	60	29	30
MIN	21	51	42	40	46	49	48	11	9.4	6.0	6.5	12
AC-FT	2370	3220	3000	3110	2960	3680	3420	3390	1670	1080	763	1130

CAL YR 1986 TOTAL 14855.4 MEAN 40.7 MAX 88 MIN 5.5 AC-FT 29470
WTR YR 1987 TOTAL 15024.7 MEAN 41.2 MAX 104 MIN 6.0 AC-FT 29800

06826000 BONNY RESERVOIR NEAR HALE, CO

LOCATION.--Lat 39°37'24", long 102°10'26", in SE¼SE¼ sec.9, T.5 S., R.43 W., Yuma County, Hydrologic Unit 10250003, in stair well to outlet conduit of Bonny Dam on South Fork Republican River, 1.7 mi west of Hale, and 3.0 mi downstream from Landsman Creek.

DRAINAGE AREA.--1,820 mi², approximately.

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WSP 1710: 1955.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to Oct. 1, 1967, nonrecording gage at present site and datum.

REMARKS.--Reservoir is formed by an earthfill dam. Storage began July 6, 1950; dam completed May 4, 1951. Capacity of reservoir, 170,200 acre-ft, below elevation 3,710 ft, crest of spillway, of which 128,800 acre-ft is for flood control and 39,900 acre-ft is for irrigation. Dead storage, 1,420 acre-ft below elevation 3,635.0 ft, sill of trashrack at outlet conduit. Figures given represent total contents.

COOPERATION.--Capacity tables provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 55,030 acre-ft, May 17, 1957, elevation, 3,678.10 ft; minimum observed since appreciable contents were attained, 22,520 acre-ft, Oct. 6-14, 1952, elevation, 3,661.20 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 40,100 acre-ft, July 6, elevation, 3,671.39 ft; minimum, 32,200 acre-ft, Oct. 10, elevation, 3,667.17 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

3,671.4	40,120
3,667.1	32,100

CONTENTS, IN ACRE FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32500	32400	32800	33700	34600	35600	37100	37900	38700	39700	38200	35900
2	32400	32500	32800	33700	34600	35700	37100	38000	38700	39800	38000	35800
3	32500	32500	32900	33700	34600	35700	37100	38000	38700	39800	37900	35800
4	32400	32500	32900	33800	34700	35700	37200	38100	38600	40000	37900	35700
5	32400	32500	32900	33800	34700	35800	37200	38200	38600	40000	37800	35600
6	32400	32500	33000	33800	34800	35800	37300	38200	38600	40100	37700	35600
7	32400	32500	33000	33800	34800	35800	37300	38300	38600	40000	37600	35500
8	32300	32500	33000	33900	34800	35800	37300	38300	38700	40000	37600	35500
9	32300	32500	33000	33900	34900	35800	37400	38300	38800	40100	37600	35400
10	32200	32400	33000	34000	34900	35900	37400	38300	38900	40000	37500	35300
11	32300	32500	33100	34000	34900	35900	37400	38300	38900	39900	37500	35300
12	32300	32500	33100	34000	34900	35900	37500	38400	38900	39900	37400	35300
13	32300	32500	33100	34000	34900	35900	37600	38400	38800	39800	37300	35200
14	32300	32500	33100	34100	35000	36000	37600	38400	38800	39800	37300	35200
15	32300	32500	33200	34100	35100	36000	37700	38300	38800	39700	37200	35200
16	32300	32600	33200	34100	35100	36200	37700	38300	38800	39600	37100	35200
17	32300	32600	33300	34100	35100	36300	37700	38300	38700	39500	37000	35100
18	32300	32600	33300	34200	35100	36400	37800	38300	38800	39500	36900	35100
19	32300	32600	33300	34200	35200	36400	37700	38400	38800	39400	36900	35200
20	32400	32600	33300	34300	35200	36500	37700	38400	38900	39300	36800	35000
21	32400	32600	33400	34200	35300	36500	37700	38400	38800	39200	36700	35000
22	32400	32600	33400	34300	35300	36500	37800	38400	38900	39100	36600	35000
23	32400	32600	33400	34300	35300	36500	37800	38400	38900	39000	36500	34900
24	32400	32700	33400	34300	35300	36600	37800	38500	39300	38900	36400	34900
25	32400	32700	33500	34300	35400	36600	37800	38700	39500	38800	36400	34900
26	32400	32700	33500	34400	35500	36700	37800	38800	39600	38700	36300	34800
27	32400	32700	33500	34400	35600	36700	37800	38700	39600	38600	36300	34800
28	32400	32800	33600	34500	35600	36900	37900	38700	39700	38500	36200	34700
29	32400	32700	33600	34500	---	36900	37900	38700	39700	38400	36100	34600
30	32400	32800	33600	34500	---	36900	37900	38700	39700	38300	36100	34600
31	32400	---	33600	34600	---	37000	---	38700	---	38200	35900	---
MAX	32500	32800	33600	34600	35600	37000	37900	38800	39700	40100	38200	35900
MIN	32200	32400	32800	33700	34600	35600	37100	37900	38600	38200	35900	34600

WTR YR 1987 MAX 40100 MIN 32200

ARKANSAS RIVER BASIN

07079200 LEADVILLE DRAIN AT LEADVILLE, CO

LOCATION.--Lat 39°16'29", long 106°17'15", in SW¼SW¼ sec.12 T.9 S., R.80 W., Lake County, Hydrologic Unit 11020001, at Parshall flume, 500 ft below Leadville Drainage tunnel, 0.4 mi upstream from mouth and 1.6 mi north of courthouse in Leadville.

PERIOD OF RECORD.--October 1982 to August 1987 (discontinued).

REMARKS.--Samples are collected by the Bureau of Reclamation and analyzed by the U.S. Geological Survey.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (STAND-ARD UNITS)	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG)	SODIUM, TOTAL RECOV-ERABLE (MG/L AS NA)	POTAS-SIUM, TOTAL RECOV-ERABLE (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
OCT									
06...	1030	--	675	--	70	32	2.9	1.3	135
NOV									
04...	1100	4.2	682	7.0	76	34	3.1	0.9	138
DEC									
01...	1045	3.9	702	6.9	78	35	4.8	1.5	139
JAN									
05...	1130	3.8	805	6.9	80	37	3.2	1.3	141
FEB									
02...	1415	3.8	839	6.9	100	45	3.3	1.3	143
MAR									
02...	1430	3.8	820	6.9	100	46	3.5	1.4	145
APR									
06...	1145	3.8	827	6.9	100	47	3.5	1.2	146
MAY									
04...	1400	3.5	937	6.8	100	48	3.5	1.4	145
JUN									
02...	1345	3.8	852	6.7	95	43	3.4	1.4	128
JUL									
06...	1345	3.8	709	6.9	76	33	3.0	1.3	132
AUG									
03...	1345	4.0	698	6.9	90	38	--	1.5	135
31...	1245	4.0	737	6.9	25	11	2.9	1.0	134

DATE	TIME	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV ERABL (UG/L AS ZN	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C,-SUS-PENDED (MG/L))
OCT											
06...	1030	11	10	1300	<5	1100	0.2	310	240	1.2	50
NOV											
04...	1100	11	10	1400	30	140	0.2	330	260	1.8	50
DEC											
01...	1045	10	<10	1500	<5	1400	0.2	350	280	1.8	70
JAN											
05...	1130	10	70	1600	9	1500	<0.1	360	320	1.6	<10
FEB											
02...	1415	12	<10	1800	9	1500	0.1	360	310	1.7	40
MAR											
02...	1430	<1	<10	1500	<5	1600	0.2	360	330	1.6	20
APR											
06...	1145	11	<10	1800	<5	1800	0.2	370	350	2.0	70
MAY											
04...	1400	14	<10	1400	5	1800	0.1	420	360	1.8	30
JUN											
02...	1345	40	20	1100	6	310	0.1	710	350	1.6	60
JUL											
06...	1345	22	<10	1100	8	1500	0.2	--	240	1.4	2
AUG											
03...	1345	14	10	1400	6	1100	<0.5	350	240	1.5	180
31...	1245	14	30	1400	5	1300	<0.5	340	250	1.3	80

07079300 EAST FORK ARKANSAS RIVER AT US HIGHWAY 24, NEAR LEADVILLE, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 39°16'21", long 106°18'21", in NW¼NW¼ sec 14, T.9 S., R.80 W., Lake County, Hydrologic Unit 11020001, at U. S. highway 24 bridge, 1.6 mi northwest of courthouse in Leadville.

PERIOD OF RECORD.--October 1982 to current year.

REMARKS.--Samples are collected by the Bureau of Reclamation and analysed by the U.S. Geological Survey.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (STAND-ARD UNITS)	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG)	SODIUM, TOTAL RECOV-ERABLE (MG/L AS NA)	POTAS-SIUM, TOTAL RECOV-ERABLE (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)
OCT											
06...	1100	282	--	28	13	1.9	1.1	93	49	0.60	5
NOV											
04...	1115	314	7.8	31	14	1.9	0.7	99	67	0.80	5
DEC											
01...	1100	330	7.8	34	15	4.6	1.0	105	29	0.90	<1
JAN											
05...	1145	415	7.7	40	18	2.2	1.0	110	100	0.90	<1
FEB											
02...	1430	433	7.8	49	21	2.3	1.0	110	110	1.0	<1
MAR											
02...	1445	386	7.9	45	17	2.3	1.5	108	92	0.80	<1
APR											
06...	1200	435	7.8	52	22	2.4	0.9	114	110	1.4	5
MAY											
04...	1415	279	7.8	28	12	1.8	1.0	81	50	0.4	3
JUN											
02...	1400	156	7.6	16	6.9	1.0	0.7	54	21	0.50	3
JUL											
06...	1400	187	7.7	19	8.0	1.2	0.8	66	22	0.40	<1
AUG											
03...	1400	203	7.8	22	8.9	1.8	0.9	72	31	0.40	<1
31...	1300	267	7.8	41	18	1.6	0.7	82	45	0.50	2

DATE	TIME	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT								
06...	1100	<1	10	190	<5	150	<0.1	500
NOV								
04...	1115	2	<10	270	<5	210	<0.1	550
DEC								
01...	1100	2	<10	260	<5	270	<0.1	760
JAN								
05...	1145	2	60	190	<5	340	<0.1	960
FEB								
02...	1430	2	<10	220	<5	380	<0.1	840
MAR								
02...	1445	<1	<10	220	<5	310	<0.1	660
APR								
06...	1200	2	<10	240	6	390	<0.1	1000
MAY								
04...	1415	1	<10	250	<5	160	<0.1	320
JUN								
02...	1400	<1	10	290	5	100	<0.1	210
JUL								
06...	1400	<1	<10	170	<5	90	<0.1	160
AUG								
03...	1400	<1	<10	190	<5	100	<0.5	180
31...	1300	<1	30	210	<5	150	<0.5	300

07082400 TURQUOISE LAKE NEAR LEADVILLE, CO

LOCATION.--Lat 39°15'10", long 106°22'26", in SW¼NE¼ sec.19, T.9 S., R.80 W., Lake County, Hydrologic Unit 11020001, in control house of Sugar Loaf Dam on Lake Fork, 4.0 mi west of Leadville and 4.6 mi upstream from mouth.

DRAINAGE AREA.--28.1 mi^2.

PERIOD OF RECORD.--April 1968 to current year.

GAGE.--Nonrecording gage read once daily. Datum of gage is 9,754.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir formed by earthfill dam completed in 1909, capacity,17,400 acre-ft. Enlargement of dam began Dec. 8, 1965, and closure was made Apr. 15, 1968. Enlarged capacity, 129,400 acre-ft at elevation 9,869.4 ft, crest of spillway. Dead storage, 2,770 acre-ft below elevation 9,765.90 ft, sill of lowest outlet. Figures given are total contents. Since Apr. 15,1968, Turquoise Lake has been a regulatory reservoir for the Fryingpan-Arkansas project and stores water imported from the Colorado River basin through Charles H. Boustead Tunnel for irrigation, municipal water supply, and power development. It also stores water for industrial use, and water imported from the Colorado River basin through Busk-Ivanhoe tunnel for irrigation and through Homestake tunnel for municipal water supply.

COOPERATION.--Records provided by U. S. Bureau of Reclamation.

EXTREMES (at 0800 of following day) FOR PERIOD OF RECORD.--Maximum contents, 131,820 acre-ft, July 10, 1983, elevation, 9,870.73 ft; minimum since appreciable storage was attained, 14,510 acre-ft, Oct. 1, 1968, elevation, 9,782.85 ft.

EXTREMES (at 0800 of the following day) FOR CURRENT YEAR.--Maximum contents, 128,180 acre-ft, July 9, elevation, 9,868.72 ft; minimum, 125,070 acre-ft, May 8, elevation, 9,866.97 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	9,868.73	128,200	-
Oct. 31	9,868.37	127,560	-640
Nov. 30	9,867.80	126,550	-1,010
Dec. 31	9,867.66	126,300	-250
CAL YR 1986			+4,100
Jan. 31	9,867.74	126,440	+140
Feb. 28	9,867.57	126,140	-300
Mar. 31	9,867.48	125,980	-160
Apr. 30	9,867.39	125,820	-160
May 31	9,867.73	126,420	+600
June 30	9,868.68	128,110	+1,690
July 31	9,868.38	127,580	-530
Aug. 31	9,868.05	126,990	-590
Sept. 30	9,867.53	126,070	-920
WTR YR 1987			-2,130

07083000 HALFMOON CREEK NEAR MALTA, CO

(Hydrologic bench-mark station)

LOCATION.--Lat 39°10'20", long 106°23'19", in SE¼SE¼ sec.13, T.10 S., R.81 W., Lake County, Hydrologic Unit 11020001, on right bank 1.4 mi upstream from culvert, 3.3 mi upstream from mouth, and 4.3 mi southwest of Malta.

DRAINAGE AREA.--23.6 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1946 to current year.

REVISED RECORDS.--WSP 2121: Drainage area at site 1.4 mi downstream. WRD Colo. 1968: 1967 (M). WRD CO-79-1: 1976 (M). WRD CO-80-1: 1954 (M).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 9,830 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 19, 1966, at sites 1.4 mi downstream at different datums.

REMARKS.--Estimated daily discharges: Dec. 9 to Mar. 16, Mar 24-26, 30 and Apr. 3. Records good except those for periods with ice effect Dec.9 to Mar. 16, Mar. 24-26, 30 and Apr. 3, which are poor. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--41 years, 29.5 ft^3/s; 21,370 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 615 ft^3/s, June 30, 1984, gage height, 3.77 ft, from rating curve extended above 300 ft^3/s; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 8	0230	*200	*3.09	June 12	2200	194	3.07

Minimum daily discharge, 3.3 ft^3/s, Feb. 18-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	6.7	7.5	4.5	4.0	3.5	4.2	45	74	92	41	23
2	23	14	6.7	4.5	4.0	3.5	4.2	36	75	84	48	23
3	23	15	5.9	4.5	4.0	3.7	4.0	35	92	80	41	22
4	22	15	4.9	4.5	4.0	3.9	3.9	29	110	75	37	22
5	21	17	4.2	4.5	4.0	4.2	3.9	26	124	70	34	21
6	21	18	5.4	4.3	4.0	4.5	4.0	26	127	66	34	20
7	21	13	5.7	4.0	4.0	4.9	4.0	28	133	63	39	19
8	20	12	4.0	4.0	4.0	5.0	4.2	39	179	63	41	19
9	20	12	3.9	4.0	4.0	5.0	4.4	52	168	59	38	17
10	20	12	3.7	4.4	4.0	4.8	4.3	55	158	58	37	17
11	21	11	3.8	4.6	4.0	4.6	4.4	57	157	55	34	16
12	19	12	3.9	4.7	4.0	4.4	4.1	71	159	53	33	15
13	19	11	4.2	4.7	4.0	4.3	4.4	79	166	49	32	15
14	23	11	4.4	4.7	4.3	4.2	4.3	125	165	46	31	15
15	21	10	4.5	4.6	3.9	4.1	5.1	129	154	45	29	14
16	20	10	4.5	4.4	3.6	4.1	6.5	129	152	46	28	14
17	20	10	4.5	4.0	3.4	4.1	8.3	131	144	45	26	14
18	19	10	4.5	3.8	3.3	4.2	11	118	133	44	24	14
19	18	10	4.5	3.7	3.3	4.3	12	99	125	39	23	13
20	17	10	4.5	3.6	3.3	4.0	12	96	121	37	22	12
21	17	9.6	4.5	3.5	3.4	4.2	9.9	84	114	37	22	12
22	17	9.9	4.5	3.5	3.5	4.4	11	70	113	38	31	11
23	16	8.8	4.5	3.5	3.7	4.1	15	64	114	37	40	11
24	16	9.3	4.5	3.5	3.9	4.0	21	66	110	36	38	11
25	16	9.3	4.5	3.7	4.0	4.0	23	57	110	35	37	11
26	16	9.1	4.5	3.9	4.0	4.0	25	58	108	37	35	11
27	15	8.6	4.5	4.0	3.8	4.0	28	44	105	49	32	11
28	16	8.5	4.5	4.0	3.6	4.2	36	47	99	50	30	10
29	15	8.7	4.5	4.0	---	4.0	39	49	93	43	29	10
30	14	8.5	4.5	4.0	---	4.0	40	49	84	42	27	10
31	13	---	4.5	4.0	---	4.0	---	55	---	40	25	---
TOTAL	582	330.0	144.7	127.6	107.0	130.2	361.1	2048	3766	1613	1018	453
MEAN	18.8	11.0	4.67	4.12	3.82	4.20	12.0	66.1	126	52.0	32.8	15.1
MAX	23	18	7.5	4.7	4.3	5.0	40	131	179	92	48	23
MIN	13	6.7	3.7	3.5	3.3	3.5	3.9	26	74	35	22	10
AC-FT	1150	655	287	253	212	258	716	4060	7470	3200	2020	899

CAL YR 1986 TOTAL 13894.1 MEAN 38.1 MAX 203 MIN 3.7 AC-FT 27560
WTR YR 1987 TOTAL 10680.6 MEAN 29.3 MAX 179 MIN 3.3 AC-FT 21180

07083000 HALFMOON CREEK NEAR MALTA, CO--Continued
(Hydrologic bench-mark station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- November 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1967 to September 1982.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 26.0°C Aug. 16, 1980; minimum, 0.0°C on many days during winter months.

WATER QUALITY DATA, OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (FTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)
OCT 24...	1100	11	82	8.6	1.0	17	8.1	<1	<1	39
JAN 15...	1200	5.2	--	8.5	0.0	0.20	8.5	0	0	44
FEB 20...	1200	3.6	105	8.2	0.0	0.30	8.6	<1	<1	45
MAY 15...	1230	125	57	8.4	7.0	1.9	8.5	2	4	24
JUN 30...	1300	84	50	8.5	6.5	1.0	8.4	4	6	28
AUG 31...	1430	23	80	7.9	13.0	0.40	7.7	<1	K2	36

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	LKA-LINITY WATER DISSOLV FLD. AS CACO3 (MG/L)	CARBONAT WATER DISSOLV FIELD (MG/L AS CO3)
OCT 24...	9.7	3.5	1.4	0.70	9.1	0.50	0.10	5.8	--	--
JAN 15...	11	4.1	1.9	0.80	--	0.30	<0.10	6.9	90	41
FEB 20...	11	4.3	2.0	0.90	0.30	0.30	0.10	7.0	--	--
MAY 15...	6.0	2.3	1.0	0.60	7.3	0.20	<0.10	3.8	23	0
JUN 30...	7.2	2.4	1.0	0.60	4.4	0.20	<0.10	4.0	36	0
AUG 31...	9.0	3.3	1.6	0.70	5.6	0.30	0.10	4.9	43	--

DATE	BICARBONATE WATER DISSOLV FIELD (MG/L AS HCO3	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	PHOSPHOROUS TOTAL (MG/L AS P)	PHOSPHOROUS DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)
OCT 24...	--	55	54	0.15	0.02	0.30	0.03	<0.01	<0.01	70
JAN 15...	27	56	--	0.16	0.02	0.30	0.03	<0.01	0.01	--
FEB 20...	--	54	51	0.17	0.09	<0.20	0.12	<0.01	0.01	30
MAY 15...	28	38	36	0.11	0.03	0.50	0.04	0.02	0.01	--
JUN 30...	44	35	36	0.12	<0.01	0.30	--	0.06	0.09	20
AUG 31...	52	48	47	0.130	0.02	<0.20	0.03	0.01	0.03	30

K BASED ON NON-IDEAL COLONY COUNT.

07083000 HALFMOON CREEK NEAR MALTA, CO--Continued

WATER QUALITY DATA, OCTOBER 1986 TO SEPTEMBER 1987

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD DIS-SOLVED (UG/L AS PB)	LITHIUM, DIS-SOLVED (UG/L AS LI)
OCT 24...	<1	26	<0.5	1	<1	<3	3	96	<6	4
FEB 20...	<1	24	1	5	<1	<3	7	83	<6	4
JUN 30...	<1	16	<0.5	<1	<1	<3	1	40	<5	<4
AUG 31...	1	21	<0.5	<1	4	<3	2	94	<5	<4

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 24...	10	0.1	<10	1	<1	5.0	68	<6	44
FEB 20...	6	1.0	<10	4	<1	1.0	82	<6	33
JUN 30...	4	1.0	<10	1	<1	<1.0	49	<6	7
AUG 31...	6	0.1	<10	1	<1	<1.0	65	<6	11

RADIO CHEMICAL ANALYSIS, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L)
JAN 15...	1200	<0.4	<0.4	0.7	<0.4	0.7	<0.4	0.02	0.05

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 24...	1100	11	0	0.0	0
MAY 15...	1200	125	23	7.3	60
JUN 30...	1030	84	6	1.3	52

07087200 ARKANSAS RIVER AT BUENA VISTA, CO

LOCATION.--Lat 38°50'56", long 106°07'27", in NW¼NW¼ sec. 9, T. 14 S., R. 78 W., Chaffee County, Hydrologic Unit 11020001, on right bank at northeast corner of Buena Vista city limits and 1.1 mi upstream from Cottonwood Creek.

DRAINAGE AREA.--611 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to September 1980, October 1986 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,920 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-16, and Dec. 18 to Jan. 28. Records good except those for winter period, which are fair and estimated daily discharges, which are poor. Natural flow of steam affected by transmountain diversions (see elsewhere in this report), storage reservoirs, diversions upstream from station for irrigation of 7,400 acres, and return flow from irrigated areas.

AVERAGE DISCHARGE.--17 years (water years 1964-80, 1987), 503 ft³/s, 364,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,950 ft³/s, June 11, 1980, gage height, 6.55 ft; minimum daily, 57 ft³/s, Jan. 27-28, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,890 ft³/s at 0200 June 10, gage height, 5.55 ft; minimum daily, 101 ft³/s, Apr. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	240	233	188	153	142	123	105	790	945	1150	681	263
2	240	227	194	148	137	122	109	768	1160	966	692	285
3	235	243	191	142	138	120	101	712	1350	922	663	295
4	230	268	180	138	136	121	108	632	1500	878	585	319
5	220	256	167	135	132	124	102	522	1610	844	530	339
6	215	236	173	132	124	128	103	478	1650	751	476	328
7	210	246	175	130	126	132	107	467	1810	610	488	321
8	210	227	171	128	126	141	124	547	2220	680	532	322
9	230	220	167	128	125	140	161	633	2640	731	423	269
10	250	238	143	126	123	136	165	726	2650	722	393	256
11	260	232	164	132	127	123	182	853	2220	606	426	249
12	260	244	161	138	125	119	181	982	2030	602	419	220
13	260	234	163	140	124	121	163	1070	2000	582	390	217
14	260	251	166	140	124	125	167	1250	2050	547	391	221
15	260	236	173	133	114	126	206	1380	2090	611	381	232
16	255	238	183	125	119	127	264	1860	2110	715	403	242
17	258	235	180	118	117	122	322	2700	2010	669	430	237
18	261	226	177	115	108	126	351	2610	1850	693	514	234
19	240	218	174	120	113	131	377	2250	1650	661	452	233
20	271	215	170	125	117	132	386	1950	1540	666	426	232
21	265	211	170	130	111	124	317	1640	1450	685	388	230
22	269	219	170	130	116	130	338	1600	1430	729	347	209
23	283	194	170	130	115	124	425	1340	1420	678	416	207
24	265	204	170	130	114	127	472	1150	1390	626	452	202
25	260	204	170	125	119	119	504	1090	1330	618	512	204
26	256	207	170	125	121	119	516	1020	1230	611	465	202
27	247	193	170	125	117	114	535	943	1200	664	421	203
28	226	199	170	125	117	106	651	864	1150	902	329	201
29	221	195	165	125	---	108	741	779	1140	1020	321	200
30	217	198	161	133	---	102	842	761	1200	705	312	201
31	221	---	158	144	---	112	---	791	---	646	291	---
TOTAL	7595	6747	5304	4068	3427	3824	9125	35158	50025	22490	13949	7373
MEAN	245	225	171	131	122	123	304	1134	1667	725	450	246
MAX	283	268	194	153	142	141	842	2700	2650	1150	692	339
MIN	210	193	143	115	108	102	101	467	945	547	291	200
AC-FT	15060	13380	10520	8070	6800	7580	18100	69740	99220	44610	27670	14620

WTR YR 1987 TOTAL 169085 MEAN 463 MAX 2700 MIN 101 AC-FT 335400

07087200 ARKANSAS RIVER AT BUENA VISTA, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1986 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1986 to current year.
WATER TEMPERATURE: November 1986 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Daily data that are not published are either missing or of poor quality. Records are good except for conductance record Nov. 11-25, which are fair, and temperature record Mar. 26,30, Apr. 1 to May 14, which are fair. Daily maximum and minium specific conductance data are available in the district office.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 207 microsiemens Mar. 15; minimum, 88 microsiemens June 9-10.
WATER TEMPERATURE: Maximum 18.0°C July 31 and Aug. 1,8; minimum, 0.0°C many days during winter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
DEC							
12...	1100	154	205	8.6	8.3	0.02	0.20
JAN							
29...	1400	123	190	8.6	8.7	0.02	0.20
FEB							
19...	1100	112	187	8.3	--	0.01	0.20
MAR							
20...	1200	134	180	8.8	8.8	0.04	0.10
MAY							
14...	1630	1230	105	--	8.4	0.03	<0.10
JUL							
01...	1400	1400	108	8.9	7.6	0.02	<0.10
30...	1600	683	120	7.8	8.0	<0.01	<0.10
SEP							
01...	1600	275	150	8.2	7.4	0.01	<0.10

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	160	---	190	185	188	115	---	103	112	151
2	---	---	160	---	187	183	189	116	---	104	113	156
3	---	---	159	---	187	185	191	117	96	106	113	154
4	---	---	162	---	187	186	190	118	95	99	114	150
5	---	---	165	---	189	183	191	124	94	---	113	145
6	---	---	166	---	188	183	192	128	94	---	116	143
7	---	---	164	---	188	184	192	133	93	---	118	142
8	---	---	164	---	188	185	193	128	91	---	119	142
9	---	---	167	---	188	191	188	120	90	---	121	148
10	---	---	179	---	186	193	190	117	91	---	124	151
11	---	140	177	---	185	194	186	113	89	---	120	---
12	---	150	176	---	185	196	190	113	91	---	120	---
13	---	150	176	---	186	194	192	115	92	---	123	---
14	---	150	---	---	185	194	195	117	91	---	126	---
15	---	150	---	---	188	195	195	---	91	---	126	---
16	---	160	---	---	187	190	193	---	91	---	123	---
17	---	160	---	---	187	192	194	---	91	---	123	138
18	---	160	---	---	187	193	197	---	91	---	114	138
19	---	160	---	---	187	190	197	---	92	---	118	138
20	---	160	---	---	187	187	190	---	94	---	119	138
21	---	160	---	---	188	185	189	---	95	---	121	138
22	---	160	---	---	184	183	193	---	96	---	132	143
23	---	160	---	---	185	184	186	---	96	---	137	145
24	---	160	---	---	187	181	177	---	96	---	133	146
25	---	152	---	---	184	181	164	---	96	---	124	147
26	---	160	---	---	184	183	160	---	97	---	126	148
27	---	154	---	---	182	186	157	---	98	---	124	149
28	---	148	---	---	186	182	149	---	98	---	135	147
29	---	157	---	---	---	188	129	---	99	---	138	149
30	---	160	---	189	---	---	114	---	101	---	143	148
31	---	---	---	189	---	---	---	---	---	115	146	---
MEAN	---	---	---	---	186	---	182	---	93.7	---	124	---

07087200 ARKANSAS RIVER AT BUENA VISTA, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	.5	.0	---	---	.0	.0	---	---
2	---	---	---	---	.5	.0	---	---	.0	.0	---	---
3	---	---	---	---	1.5	.0	---	---	.0	.0	---	---
4	---	---	---	---	1.5	.0	---	---	.0	.0	---	---
5	---	---	---	---	2.5	.0	---	---	.0	.0	---	---
6	---	---	---	---	2.0	.5	---	---	.0	.0	---	---
7	---	---	---	---	2.5	1.0	---	---	.0	.0	---	---
8	---	---	---	---	2.0	.0	---	---	.0	.0	---	---
9	---	---	---	---	.5	.0	---	---	.0	.0	---	---
10	---	---	---	---	.0	.0	---	---	.0	.0	---	---
11	---	---	1.0	.0	.5	.0	---	---	.0	.0	---	---
12	---	---	2.0	.0	1.0	.0	---	---	.0	.0	---	---
13	---	---	1.5	.0	1.5	.5	---	---	.0	.0	---	---
14	---	---	3.0	.0	1.0	.0	---	---	.0	.0	---	---
15	---	---	3.5	1.0	1.0	.0	---	---	.0	.0	---	---
16	---	---	4.0	1.5	1.0	.0	---	---	.0	.0	---	---
17	---	---	4.5	2.5	.5	.0	---	---	.0	.0	---	---
18	---	---	5.0	3.0	---	---	---	---	.0	.0	---	---
19	---	---	5.5	3.5	---	---	---	---	.0	.0	---	---
20	---	---	4.0	2.5	---	---	---	---	.0	.0	---	---
21	---	---	3.5	1.5	---	---	---	---	---	---	---	---
22	---	---	2.5	1.5	---	---	---	---	---	---	---	---
23	---	---	1.5	.0	---	---	---	---	---	---	---	---
24	---	---	1.0	.0	---	---	---	---	---	---	---	---
25	---	---	1.0	.0	---	---	---	---	---	---	---	---
26	---	---	2.0	.0	---	---	---	---	---	---	5.5	---
27	---	---	1.0	.0	---	---	---	---	---	---	---	---
28	---	---	2.0	.0	---	---	---	---	---	---	---	---
29	---	---	2.5	.0	---	---	---	---	---	---	---	---
30	---	---	1.5	.0	---	---	.0	.0	---	---	8.0	---
31	---	---	---	---	---	---	.0	.0	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	---	9.0	5.5	14.0	9.0	14.5	11.5	18.0	14.0	15.0	11.5
2	6.5	---	8.0	5.5	13.5	9.0	15.5	11.5	17.0	14.5	13.0	11.0
3	7.5	---	5.5	---	13.0	9.0	16.5	12.0	16.5	14.5	14.5	10.5
4	5.5	---	7.0	---	13.5	9.5	16.0	11.5	17.5	13.0	13.0	11.0
5	6.0	---	7.0	5.0	13.5	10.0	---	---	17.5	13.5	13.5	10.5
6	8.0	---	9.5	6.0	13.5	10.0	---	---	17.0	14.0	13.0	11.0
7	7.5	---	11.0	6.0	13.5	10.0	---	---	17.5	14.5	12.0	9.5
8	8.5	---	10.5	7.0	12.0	10.5	---	---	18.0	14.0	13.0	10.5
9	7.0	---	9.5	6.5	12.0	10.0	---	---	16.5	14.0	12.5	10.0
10	8.0	---	9.0	6.0	12.5	9.5	---	---	17.0	13.0	13.0	10.0
11	6.0	---	10.0	6.0	12.5	10.0	---	---	17.0	13.5	---	9.5
12	5.5	---	9.5	6.5	13.5	10.0	---	---	16.0	13.5	---	---
13	6.0	---	10.0	6.5	13.5	10.5	---	---	15.0	13.0	---	---
14	7.5	---	9.0	7.0	14.0	10.5	---	---	15.5	12.5	---	---
15	9.5	---	11.0	7.0	12.5	10.5	---	---	16.5	12.0	---	---
16	9.5	---	10.0	7.0	14.0	10.5	---	---	17.0	12.5	13.0	---
17	9.5	---	9.5	7.0	13.5	10.5	---	---	16.5	12.0	14.0	10.0
18	8.5	---	9.5	7.5	13.5	10.0	---	---	17.0	12.0	12.5	9.0
19	9.0	---	9.0	7.0	14.0	10.0	---	---	17.0	12.0	11.0	8.5
20	6.5	---	10.5	8.0	14.0	11.0	---	---	16.0	12.5	12.5	8.5
21	7.5	---	10.0	7.5	14.5	11.0	---	---	16.0	13.5	13.0	9.0
22	9.5	---	10.0	6.5	15.0	10.5	---	---	15.5	13.5	13.0	9.0
23	9.5	5.5	10.5	7.5	15.0	11.5	---	---	13.5	12.5	13.0	9.0
24	8.0	5.5	10.0	8.0	14.5	11.5	---	---	14.0	12.5	13.5	9.5
25	7.5	---	9.5	6.5	15.5	12.0	---	---	14.5	12.0	14.0	10.5
26	8.0	5.5	10.0	7.0	16.0	12.5	---	---	14.0	11.0	12.5	10.0
27	8.0	5.5	10.5	6.0	16.0	12.0	---	---	14.0	11.5	12.0	9.5
28	10.0	5.5	10.5	7.0	13.5	12.0	---	---	13.5	11.0	12.5	9.0
29	8.0	5.5	9.5	7.0	12.5	12.0	---	---	14.0	9.5	11.5	8.0
30	8.5	---	11.0	6.5	14.0	11.0	---	---	14.5	10.5	12.5	8.5
31	---	---	13.0	7.5	---	---	18.0	15.0	15.0	10.5	---	---
MONTH	10.0	---	13.0	---	16.0	9.0	---	---	18.0	9.5	---	---

07093740 BADGER CREEK, UPPER STATION, NEAR HOWARD, CO

LOCATION.--Lat 38°39'25", long 105°48'45", in SE¼NE¼ sec.24, T.51 N., R.10 E., Fremont County, Hydrologic Unit 11020001, on left bank 0.4 mi downstream from County Road 2, 0.7 mi upstream from Steer Creek, 14.0 mi north of Howard, and 14.3 mi upstream from mouth.

DRAINAGE AREA.--106 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1980 to September 1986. October 1986 to current year (seasonal only).

GAGE.--Water-stage recorder. Elevation of gage is 8,780 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Mar. 1-17. Records good except those between 20 and 350 ft^3/s, which are fair, and those for estimated daily discharges, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--5 years (water years 1981-86), 5.89 ft^3/s; 4,270 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,360 ft^3/s, Aug. 14, 1983, gage height, 8.22 ft, result of indirect determination of peak flow; minimum daily, 2.8 ft^3/s, Jan. 29 to Mar. 2, 1984, Dec. 1, 1984, Jan. 31 to Feb. 1, and Feb. 11, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 19	1845	*305	*6.79	Apr. 28	2015	58	5.17
Apr 23	2115	86	5.54	Aug. 12	1430	71	5.65

Minimum daily discharge, 5.0 ft^3/s, Sept. 19-20, 23-25, 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	---	---	---	---	6.5	7.9	29	11	9.3	5.8	6.1
2	7.0	---	---	---	---	7.0	8.5	28	11	8.8	5.8	6.7
3	6.9	---	---	---	---	7.0	9.5	23	10	8.3	5.8	6.1
4	6.8	---	---	---	---	7.5	10	22	10	7.8	5.8	5.8
5	6.9	---	---	---	---	7.5	11	21	9.9	7.6	5.7	5.8
6	7.2	---	---	---	---	7.0	12	21	9.8	7.3	5.6	5.8
7	7.1	---	---	---	---	6.5	14	20	9.9	7.1	5.6	5.7
8	6.6	---	---	---	---	7.5	15	19	10	7.0	5.6	5.7
9	7.0	---	---	---	---	7.5	16	18	14	6.9	5.7	5.6
10	7.1	---	---	---	---	6.0	16	18	12	6.8	6.2	5.6
11	7.2	---	---	---	---	6.0	17	18	11	6.6	5.9	5.5
12	6.8	---	---	---	---	6.5	18	18	10	6.5	8.6	5.4
13	6.6	---	---	---	---	6.5	16	17	9.9	6.3	6.5	5.3
14	6.5	---	---	---	---	6.0	16	16	9.7	6.3	6.0	5.3
15	6.9	---	---	---	---	6.0	18	16	9.5	6.3	5.9	5.2
16	7.3	---	---	---	---	6.0	28	16	9.4	6.2	5.8	5.2
17	7.5	---	---	---	---	6.0	58	15	9.3	6.1	5.7	5.1
18	8.0	---	---	---	---	6.0	91	15	9.0	6.0	5.6	5.1
19	8.6	---	---	---	---	6.2	123	14	8.9	5.8	5.6	5.0
20	9.8	---	---	---	---	6.2	51	17	8.9	5.7	5.6	5.0
21	10	---	---	---	---	6.1	28	15	8.7	5.6	5.6	5.1
22	9.8	---	---	---	---	6.1	33	14	8.5	5.5	6.2	5.1
23	9.8	---	---	---	---	6.2	46	14	8.4	5.4	9.2	5.0
24	9.7	---	---	---	---	6.1	50	13	8.3	5.4	7.2	5.0
25	9.5	---	---	---	---	6.0	42	13	8.2	5.4	6.6	5.0
26	9.4	---	---	---	---	6.1	35	12	8.1	5.5	6.3	5.1
27	9.1	---	---	---	---	6.2	33	12	8.0	5.6	6.2	5.0
28	8.9	---	---	---	---	6.2	40	12	8.0	5.7	6.2	5.4
29	8.9	---	---	---	---	6.1	36	12	8.4	6.4	6.0	5.4
30	9.3	---	---	---	---	6.5	29	12	11	6.0	5.8	5.3
31	9.5	---	---	---	---	7.1	---	11	---	5.8	5.7	---
TOTAL	248.8	---	---	---	---	200.1	927.9	521	288.8	201.0	189.8	162.4
MEAN	8.03	---	---	---	---	6.45	30.9	16.8	9.63	6.48	6.12	5.41
MAX	10	---	---	---	---	7.5	123	29	14	9.3	9.2	6.7
MIN	6.5	---	---	---	---	6.0	7.9	11	8.0	5.4	5.6	5.0
AC-FT	493	---	---	---	---	397	1840	1030	573	399	376	322

07093740 BADGER CREEK, UPPER STATION, NEAR HOWARD, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1981 to current year (seasonal record only).

PERIOD OF DAILY RECORD.--Suspended sediment discharge June 1981 to current year (seasonal only).

INSTRUMENTATION.--Pumping sediment sampler since June 1981.

REMARKS.--Records good except those that are estimated, which are poor.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 25,800 mg/L Aug. 20, 1982; minimum daily, 5 mg/L July 12, 1983, and Aug. 19-21, Sept. 14-25, 1987.
SEDIMENT LOADS: Maximum daily, 15,600 tons Aug. 14, 1983; minimum daily, 0.05 ton Sept. 20-22, 1981, July 12, 1983.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 3,620 mg/l Apr. 24; minimum daily, 5 mg/L Aug. 19-21 and Sept. 14-25.
SEDIMENT LOADS: Maximum daily, 2,160 tons Apr. 19; minimum daily, 0.10 tons many days.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW; INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
APR					JUN				
08...	1300	16	67	2.9	04...	1520	10	82	2.2
22...	1130	27	1040	76	JUL				
29...	1400	28	248	19	02...	1230	8.9	39	0.94
MAY					AUG				
05...	1130	21	125	7.1	12...	1220	5.8	5	0.08
12...	1245	19	306	16	24...	1630	6.8	23	0.42

07093740 BADGER CREEK, UPPER STATION, NEAR HOWARD, CO--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER							
1	7.1	---	.50						
2	7.0	---	.45						
3	6.9	---	.45						
4	6.8	---	.45						
5	6.9	---	.55						
6	7.2	---	.85						
7	7.1	---	.95						
8	6.6	---	.80						
9	7.0	---	1.0						
10	7.1	---	1.0						
11	7.2	---	1.5						
12	6.8	---	1.0						
13	6.6	---	1.0						
14	6.5	72	1.3						
15	6.9	77	1.4						
16	7.3	---	1.5						
17	7.5	---	1.5						
18	8.0	---	2.0						
19	8.6	---	2.5						
20	9.8	---	3.0						
21	10	---	3.5						
22	9.8	---	3.0						
23	9.8	---	2.5						
24	9.7	---	2.5						
25	9.5	---	2.5						
26	9.4	---	2.0						
27	9.1	---	2.0						
28	8.9	---	2.0						
29	8.9	---	2.0						
30	9.3	---	2.0						
31	9.5	---	2.0						
TOTAL	248.8	---	49.70						
		JANUARY			FEBRUARY			MARCH	
1	---	---	---	---	---	---	6.5	---	.45
2	---	---	---	---	---	---	7.0	---	.65
3	---	---	---	---	---	---	7.0	---	.65
4	---	---	---	---	---	---	7.5	---	.60
5	---	---	---	---	---	---	7.5	---	.60
6	---	---	---	---	---	---	7.0	---	.45
7	---	---	---	---	---	---	6.5	---	.45
8	---	---	---	---	---	---	7.5	---	.50
9	---	---	---	---	---	---	7.5	---	.50
10	---	---	---	---	---	---	6.0	---	.40
11	---	---	---	---	---	---	6.0	---	.40
12	---	---	---	---	---	---	6.5	---	.50
13	---	---	---	---	---	---	6.5	---	.50
14	---	---	---	---	---	---	6.0	---	.40
15	---	---	---	---	---	---	6.0	---	.40
16	---	---	---	---	---	---	6.0	---	.40
17	---	---	---	---	---	---	6.0	---	.40
18	---	---	---	---	---	---	6.0	---	.40
19	---	---	---	---	---	---	6.2	---	.40
20	---	---	---	---	---	---	6.2	---	.40
21	---	---	---	---	---	---	6.1	---	.40
22	---	---	---	---	---	---	6.1	---	.40
23	---	---	---	---	---	---	6.2	---	.40
24	---	---	---	---	---	---	6.1	---	.40
25	---	---	---	---	---	---	6.0	---	.40
26	---	---	---	---	---	---	6.1	---	.40
27	---	---	---	---	---	---	6.2	---	.40
28	---	---	---	---	---	---	6.2	---	.40
29	---	---	---	---	---	---	6.1	---	.40
30	---	---	---	---	---	---	6.5	---	.50
31	---	---	---	---	---	---	7.1	---	.55
TOTAL	---	---	---	---	---	---	200.1	---	14.10

07093740 BADGER CREEK, UPPER STATION, NEAR HOWARD, CO--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	7.9	---	.75	29	312	26	11	---	2.5
2	8.5	---	.80	28	288	23	11	---	2.5
3	9.5	---	1.0	23	148	9.2	10	---	2.0
4	10	---	1.0	22	---	7.5	10	82	2.2
5	11	---	1.5	21	---	7.0	9.9	---	2.0
6	12	---	1.5	21	---	9.0	9.8	---	2.0
7	14	---	2.5	20	---	6.5	9.9	---	1.5
8	15	67	2.7	19	---	5.5	10	---	2.0
9	16	---	3.0	18	---	5.0	14	---	5.5
10	16	---	3.0	18	---	6.0	12	---	3.5
11	17	---	4.0	18	---	5.5	11	---	2.0
12	18	---	5.5	18	157	7.8	10	---	2.0
13	16	---	4.5	17	---	5.0	9.9	---	1.5
14	16	---	3.5	16	---	4.5	9.7	---	1.5
15	18	542	27	16	---	5.0	9.5	---	1.5
16	28	1730	160	16	---	4.5	9.4	---	1.5
17	58	2150	458	15	---	4.0	9.3	---	1.5
18	91	2990	792	15	---	4.0	9.0	---	1.5
19	123	---	2160	14	---	3.5	8.9	---	1.0
20	51	---	249	17	---	9.0	8.9	---	1.0
21	28	---	128	15	---	6.0	8.7	---	1.0
22	33	2860	337	14	---	4.0	8.5	---	.90
23	46	3300	526	14	---	3.5	8.4	---	.90
24	50	3620	542	13	---	3.0	8.3	---	.90
25	42	2370	300	13	---	3.5	8.2	---	.75
26	35	---	160	12	---	3.0	8.1	---	.75
27	33	---	162	12	---	2.5	8.0	---	.75
28	40	---	284	12	---	3.0	8.0	---	.75
29	36	918	99	12	---	2.5	8.4	---	1.0
30	29	302	25	12	---	2.5	11	---	3.0
31	---	---	---	11	---	2.5	---	---	---
TOTAL	927.9	---	6444.25	521	---	193.5	288.8	---	51.40
		JULY			AUGUST			SEPTEMBER	
1	9.3	---	2.5	5.8	---	.20	6.1	---	.35
2	8.8	---	1.5	5.8	---	.20	6.7	---	.55
3	8.3	39	.87	5.8	---	.15	6.1	---	.25
4	7.8	---	.75	5.8	---	.15	5.8	---	.15
5	7.6	---	.60	5.7	---	.10	5.8	---	.15
6	7.3	---	.60	5.6	---	.10	5.8	---	.10
7	7.1	---	.55	5.6	---	.10	5.7	---	.10
8	7.0	---	.50	5.6	---	.10	5.7	---	.10
9	6.9	---	.45	5.7	---	.25	5.6	---	.10
10	6.8	---	.45	6.2	---	.35	5.6	---	.10
11	6.6	---	.45	5.9	---	.10	5.5	---	.10
12	6.5	---	.40	8.6	1240	84	5.4	---	.10
13	6.3	---	.40	6.5	---	2.5	5.3	---	.10
14	6.3	---	.40	6.0	---	.45	5.3	---	.10
15	6.3	---	.40	5.9	---	.25	5.2	---	.10
16	6.2	---	.35	5.8	---	.15	5.2	---	.10
17	6.1	---	.30	5.7	---	.10	5.1	---	.10
18	6.0	---	.25	5.6	---	.10	5.1	---	.10
19	5.8	---	.25	5.6	---	.10	5.0	---	.10
20	5.7	---	.25	5.6	---	.10	5.0	---	.10
21	5.6	---	.20	5.6	---	.10	5.1	---	.10
22	5.5	---	.20	6.2	---	.50	5.1	---	.10
23	5.4	13	.19	9.2	---	3.5	5.0	---	.10
24	5.4	---	.15	7.2	23	.45	5.0	---	.10
25	5.4	---	.15	6.6	---	.25	5.0	---	.10
26	5.5	---	.20	6.3	---	.15	5.1	---	.10
27	5.6	---	.20	6.2	---	.15	5.0	---	.10
28	5.7	---	.25	6.2	---	.15	5.4	---	.10
29	6.4	---	.85	6.0	---	.10	5.4	---	.10
30	6.0	---	.25	5.8	---	.10	5.3	---	.10
31	5.8	---	.20	5.7	---	.10	---	---	---
TOTAL	201.0	---	15.06	189.8	---	95.10	162.4	---	3.95

07093775 BADGER CREEK, LOWER STATION, NEAR HOWARD, CO

LOCATION.--Lat 38°28'02", long 105°51'34", in SW¼SW¼ sec.27, T.49 N., R.10 E., Fremont County, Hydrologic Unit 11020001, on left bank 660 ft upstream from Denver and Rio Grande Railroad bridge, 960 ft upstream from mouth, and 1.9 mi northwest of Howard.

DRAINAGE AREA.--211 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,780 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 19, 1983, at site 360 ft downstream at datum 5.07 ft, lower.

REMARKS.--Estimated daily discharges: Oct. 31 to Nov. 9, Dec. 8 to Jan. 24, Feb. 18-23, and Mar. 3-15. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--6 years (water years 1982-87) 10.8 ft^3/s; 7,820 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,470 ft^3/s, July 28, 1984, gage height, 8.05 ft, (from floodmark) from rating curve extended above 1,950 ft^3/s; minimum daily, 0.56 ft^3/s, Feb. 4, 5, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 19	2215	*430	*6.11	June 9	1445	55	4.61
Apr. 24	0015	193	5.36	Aug. 1	1815	84	4.73
Apr. 28	2345	149	5.15	Aug. 12	2015	69	4.62
May 15	2230	69	4.71	Aug. 30	1715	84	4.76

Minimum daily discharge, 4.5 ft^3/s, Jan. 17-18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	7.5	11	7.0	7.0	6.6	10	94	30	25	12	8.9
2	7.4	7.5	10	7.0	6.4	6.4	11	92	28	21	10	12
3	7.4	8.0	11	7.0	6.2	7.0	12	81	26	18	10	11
4	7.8	8.0	11	7.5	6.6	7.5	14	73	25	16	10	9.8
5	7.8	8.0	11	7.0	6.4	8.5	14	67	27	15	9.8	9.9
6	7.4	8.0	10	6.5	5.6	8.5	16	70	25	15	9.7	9.4
7	7.4	7.0	10	6.0	6.6	8.0	17	64	25	14	10	9.3
8	7.4	6.0	9.0	6.0	7.2	8.0	19	63	27	14	9.7	9.8
9	7.0	6.0	8.0	6.0	6.6	7.5	20	61	48	14	10	9.4
10	7.4	5.6	6.5	6.5	6.6	8.5	21	61	42	13	12	9.0
11	9.5	6.2	6.0	7.0	6.0	9.0	24	58	33	13	12	9.0
12	9.0	7.8	7.0	8.0	5.9	10	32	60	31	14	19	8.9
13	7.8	8.2	8.0	7.8	5.9	10	25	58	28	14	25	8.7
14	8.6	9.5	9.0	7.8	5.7	11	22	59	26	13	17	8.5
15	7.8	9.0	9.5	7.0	5.9	12	24	62	24	14	15	8.5
16	8.2	8.2	9.5	5.0	5.9	12	51	64	24	13	13	8.5
17	8.2	8.2	8.5	4.5	5.4	11	94	60	23	14	12	8.4
18	8.2	8.2	8.0	4.5	5.6	10	137	57	21	13	11	8.1
19	9.0	9.0	8.0	5.5	5.6	11	153	54	20	12	10	8.2
20	11	9.0	8.0	5.0	5.2	11	112	64	20	11	9.5	8.2
21	11	9.5	8.0	5.0	5.1	10	39	55	19	11	9.1	8.6
22	10	10	8.0	6.0	5.9	12	38	53	18	11	10	8.7
23	9.5	8.6	8.0	7.0	5.9	11	73	50	17	11	18	8.3
24	9.5	7.0	7.5	7.0	6.0	10	121	47	17	10	16	8.3
25	9.0	8.2	7.5	7.4	5.9	10	111	46	16	11	12	8.3
26	8.2	10	7.0	6.8	5.9	10	97	43	17	9.9	11	8.4
27	8.6	9.0	7.0	7.0	5.7	10	92	40	16	10	13	8.6
28	8.2	11	7.5	7.0	6.2	9.7	113	38	17	11	11	8.8
29	8.6	11	7.5	9.4	---	10	108	37	21	11	11	8.7
30	8.6	11	7.5	7.2	---	12	94	36	29	11	12	8.8
31	8.0	---	7.0	6.2	---	9.3	---	34	---	9.7	9.4	---
TOTAL	260.5	250.2	261.5	204.6	168.9	297.5	1714	1801	740	412.6	379.2	269.0
MEAN	8.40	8.34	8.44	6.60	6.03	9.60	57.1	58.1	24.7	13.3	12.2	8.97
MAX	11	11	11	9.4	7.2	12	153	94	48	25	25	12
MIN	7.0	5.6	6.0	4.5	5.1	6.4	10	34	16	9.7	9.1	8.1
AC-FT	517	496	519	406	335	590	3400	3570	1470	818	752	534

CAL YR 1986 TOTAL 3459.7 MEAN 9.48 MAX 29 MIN 5.6 AC-FT 6860
WTR YR 1987 TOTAL 6759.0 MEAN 18.5 MAX 153 MIN 4.5 AC-FT 13410

07093775 BADGER CREEK, LOWER STATION, NEAR HOWARD, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1981 to current year (seasonal record only).

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: May 1981 to current year (seasonal record only).

INSTRUMENTATION.--Pumping sediment sampler since May 1981.

REMARKS.--In addition to pumping sediment sampler, samples are collected by local observer who also exchanges sediment bottles in sampler on a prescribed interval. Sediment discharge record is considered fair.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 18,200 mg/L Apr. 18, 1987; minimum daily, 1 mg/L, Sept. 22, 1981, many days in water year 1986 and Oct. 16, 1986.
SEDIMENT LOADS: Maximum daily, 31,500 tons (estimated) July 28, 1984; minimum daily, no load Sept. 12-30, 1981.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 18,200 mg/L Apr. 18; minimum daily, 1 mg/L Oct. 16.
SEDIMENT LOADS: Maximum daily, 8,850 tons Apr. 19; minimum daily, 0.02 tons Oct. 16.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
27...	1130	9.0	6	0.15	--
APR					
13...	1430	26	366	26	48
21...	1130	28	3390	256	12
24...	1400	83	2390	536	39
JUN					
02...	1515	29	18	1.4	41
JUL					
07...	1415	16	22	0.95	58
24...	1330	11	33	0.98	41
AUG					
12...	1625	10	23	0.62	56

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER							
1	7.0	---	.19						
2	7.4	---	.20						
3	7.4	---	.20						
4	7.8	---	.21						
5	7.8	---	.21						
6	7.4	---	.18						
7	7.4	---	.16						
8	7.4	---	.14						
9	7.0	---	.11						
10	7.4	6	.12						
11	9.5	6	.15						
12	9.0	2	.05						
13	7.8	3	.06						
14	8.6	4	.09						
15	7.8	4	.08						
16	8.2	1	.02						
17	8.2	13	.29						
18	8.2	10	.22						
19	9.0	8	.19						
20	11	---	.30						
21	11	---	.18						
22	10	8	.22						
23	9.5	---	.20						
24	9.5	7	.18						
25	9.0	6	.15						
26	8.2	6	.13						
27	8.6	6	.14						
28	8.2	---	.13						
29	8.6	---	.14						
30	8.6	---	.14						
31	8.0	---	.13						
TOTAL	260.5	---	4.91						

07093775 BADGER CREEK, LOWER STATION, NEAR HOWARD, CO--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	10	---	2.7	94	1470	378	30	---	1.2
2	11	---	3.3	92	2160	548	28	18	1.4
3	12	---	4.4	81	---	219	26	---	1.3
4	14	---	5.7	73	---	79	25	---	1.2
5	14	---	5.7	67	165	30	27	---	1.5
6	16	---	7.3	70	---	42	25	---	1.3
7	17	---	8.3	64	---	33	25	---	1.2
8	19	---	10	63	---	24	27	---	1.3
9	20	---	12	61	---	16	48	86	11
10	21	---	14	61	---	18	42	86	9.8
11	24	---	19	58	---	16	33	---	2.7
12	32	---	35	60	---	19	31	8	.67
13	25	316	21	58	---	16	28	---	.60
14	22	---	15	59	---	18	26	---	.65
15	24	---	65	62	---	28	24	---	.60
16	51	3730	860	64	---	41	24	---	.60
17	94	8670	3220	60	---	19	23	---	.55
18	137	18200	7960	57	---	15	21	9	.50
19	153	---	8850	54	---	13	20	---	.50
20	112	---	5180	64	177	31	20	---	.45
21	39	4320	474	55	---	21	19	---	.35
22	38	---	513	53	---	11	18	---	.30
23	73	---	1050	50	---	6.8	17	---	.25
24	121	11100	4290	47	---	3.8	17	---	.25
25	111	4230	1430	46	---	3.1	16	4	.15
26	97	2320	636	43	---	2.4	17	---	.25
27	92	995	253	40	---	1.8	16	---	.20
28	113	2510	803	38	14	1.4	17	---	.25
29	108	1840	603	37	---	1.3	21	---	1.7
30	94	1090	287	36	---	1.3	29	---	5.5
31	---	---	---	34	---	1.3	---	---	---
TOTAL	1714	---	36637.4	1801	---	1658.2	740	---	48.22
		JULY			AUGUST			SEPTEMBER	
1	25	28	1.9	12	1270	.55	8.9	---	.15
2	21	---	1.5	10	---	6.3	12	---	1.6
3	18	---	1.2	10	---	1.1	11	---	.45
4	16	---	1.0	10	---	.45	9.8	---	.30
5	15	---	.90	9.8	---	.40	9.9	---	.30
6	15	---	.90	9.7	---	.40	9.4	---	.25
7	14	22	.85	10	---	.45	9.3	---	.20
8	14	---	.75	9.7	---	.40	9.8	---	.25
9	14	---	.70	10	---	.45	9.4	---	.20
10	13	---	.55	12	---	.60	9.0	---	.20
11	13	---	.55	12	---	.60	9.0	---	.20
12	14	---	.75	19	577	94	8.9	---	.20
13	14	---	.75	25	---	35	8.7	---	.20
14	13	---	.55	17	136	6.2	8.5	---	.20
15	14	19	.70	15	---	.80	8.5	---	.20
16	13	9	.30	13	---	.60	8.5	---	.20
17	14	17	.65	12	---	.40	8.4	---	.20
18	13	15	.55	11	---	.30	8.1	---	.15
19	12	---	.45	10	---	.20	8.2	---	.20
20	11	---	.40	9.5	---	.20	8.2	---	.20
21	11	---	.35	9.1	---	.10	8.6	---	.20
22	11	---	.35	10	---	.15	8.7	---	.20
23	11	---	.35	18	---	4.9	8.3	---	.20
24	10	33	.90	16	---	1.1	8.3	---	.20
25	11	---	1.2	12	---	.30	8.3	---	.20
26	9.9	---	.40	11	---	.25	8.4	---	.20
27	10	---	.30	13	---	.70	8.6	---	.20
28	11	---	1.5	11	---	.40	8.8	---	.20
29	11	---	1.2	11	---	.30	8.7	---	.20
30	11	---	.90	12	---	.50	8.8	---	.20
31	9.7	---	.35	9.4	---	.25	---	---	---
TOTAL	412.6	---	23.70	379.2	---	158.35	269.0	---	7.85

07094500 ARKANSAS RIVER AT PARKDALE, CO

LOCATION.--Lat 38°29'14", long 105°22'23", in NE¼NW¼ sec.18, T.18 S., R.71 W., Fremont County, Hydrologic Unit 11020001, on left bank at Parkdale, 100 ft upstream from Bumback Gulch, 300 ft upstream from bridge on U.S. Highway 50, and 0.9 mi upstream from Copper Gulch.

DRAINAGE AREA.--2,548 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to September 1955, October 1964 to current year. Monthly discharge only for October 1945 to May 1946, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,720 ft, from topographic map. Prior to Oct. 1, 1964, at site 600 ft downstream at different datum.

REMARKS.--Estimated daily discharges: Jan. 19-21, and Aug. 8-13. Records good except those for estimated daily discharges Aug. 8-13, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, diversions for irrigation of about 35,000 acres upstream from station, and return flow from irrigated areas.

AVERAGE DISCHARGE.--33 years (water years 1946-55, 1965-87), 822 ft^3/s; 595,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,310 ft^3/s, June 26, 1983, gage height, 7.76 ft; maximum gage height, 9.13 ft, June 9, 1985; minimum daily discharge, 200 ft^3/s, Jan. 5-7, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,950 ft^3/s at 1130 June 10, gage height, 7.84 ft; minimum daily, 310 ft^3/s, Jan. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	653	701	592	409	439	404	485	1890	1420	2030	966	629
2	624	656	576	426	430	419	519	1850	1640	1830	1000	613
3	622	678	585	427	432	427	517	1820	1920	1670	1010	628
4	636	717	581	440	433	429	525	1660	2180	1570	965	631
5	629	733	570	453	441	440	524	1450	2470	1490	880	659
6	624	716	562	444	415	454	505	1320	2640	1410	816	668
7	606	714	585	442	411	469	520	1170	2910	1240	781	658
8	589	697	566	438	423	505	537	1130	3540	1170	769	668
9	581	649	559	421	425	526	574	1250	5080	1200	940	646
10	572	639	499	388	429	519	655	1350	5720	1200	895	587
11	689	648	433	403	436	510	679	1480	4620	1130	840	572
12	721	659	487	422	448	496	789	1670	4080	1050	795	561
13	696	647	511	431	449	495	711	1920	3880	1060	760	526
14	729	670	499	435	454	529	631	2140	3820	994	703	510
15	746	686	494	402	452	535	687	2630	3790	945	697	506
16	731	683	503	310	441	546	825	3050	3900	1050	675	517
17	717	683	510	332	444	532	1050	4180	3780	1090	679	523
18	714	691	498	325	443	511	1240	4350	3500	1090	708	521
19	711	698	496	365	440	517	1310	4010	3190	1060	758	517
20	771	704	498	391	427	529	1360	3640	2880	1000	705	515
21	784	666	491	375	401	511	1000	3060	2690	994	678	517
22	754	679	475	335	393	514	894	2760	2560	1020	654	513
23	727	670	461	318	414	513	964	2520	2450	1060	769	486
24	714	609	464	332	418	494	1130	2200	2410	988	841	477
25	692	631	454	336	429	488	1250	2050	2290	955	861	466
26	667	637	436	349	450	487	1270	1890	2130	934	861	461
27	651	616	428	406	443	492	1290	1720	2050	925	885	460
28	637	609	449	452	405	472	1400	1600	1970	1020	801	464
29	624	614	439	451	---	455	1620	1470	1980	1280	720	464
30	617	615	438	433	---	446	1790	1390	2100	1160	687	460
31	609	---	437	426	---	460	---	1350	---	978	664	---
TOTAL	20837	20015	15576	12317	12065	15124	27251	65970	89590	36593	24763	16423
MEAN	672	667	502	397	431	488	908	2128	2986	1180	799	547
MAX	784	733	592	453	454	546	1790	4350	5720	2030	1010	668
MIN	572	609	428	310	393	404	485	1130	1420	925	654	460
AC-FT	41330	39700	30890	24430	23930	30000	54050	130900	177700	72580	49120	32580

CAL YR 1986 TOTAL 393858 MEAN 1079 MAX 4560 MIN 363 AC-FT 781200
WTR YR 1987 TOTAL 356524 MEAN 977 MAX 5720 MIN 310 AC-FT 707200

07094500 ARKANSAS RIVER AT PARKDALE, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1981 to September 1982, November 1986 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1986 to current year.
WATER TEMPERATURE: November 1986 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Daily data that are not published are either missing or of poor quality. Records are good. Daily maximum and minium specific conductance data are available in the district office.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 468 microsiemens Apr. 24; minimum, 108 microsiemens June 10.
WATER TEMPERATURE: Maximum 25.5°C July 23; minimum, 0.0°C many days during winter.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	OXYGEN, DISSOLVED (MG/L)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)
DEC							
15...	1230	491	330	7.8	10.8	0.02	0.30
JAN							
28...	0930	450	289	8.5	10.2	0.03	0.30
FEB							
24...	1200	401	320	8.1	12.2	0.02	0.30
MAR							
31...	1200	434	350	8.0	11.6	0.03	0.30
MAY							
13...	1500	1970	276	8.6	7.9	0.06	0.20
JUN							
26...	1200	2280	200	8.5	8.9	0.01	<0.10
JUL							
31...	1300	1040	258	8.9	8.6	<0.01	0.10
AUG							
27...	1400	971	315	7.8	7.8	0.02	0.10

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	298	332	---	331	319	359	302	275	227	245	345
2	---	309	330	---	331	321	349	296	240	225	248	343
3	---	306	329	---	333	324	348	286	206	232	245	350
4	---	297	330	---	335	323	357	276	164	232	251	341
5	---	308	330	354	328	329	357	278	147	234	271	336
6	---	320	332	365	328	333	357	283	162	234	285	331
7	---	336	330	362	328	338	357	285	152	---	298	329
8	---	337	324	337	330	347	356	302	167	---	---	332
9	---	336	319	346	333	338	357	292	130	---	---	337
10	---	338	321	---	336	342	345	266	126	247	---	341
11	---	337	329	---	340	347	349	266	147	250	---	324
12	---	338	332	---	341	350	351	271	154	272	---	340
13	---	328	330	366	340	353	355	268	151	284	---	344
14	---	330	327	349	341	355	368	240	155	296	---	360
15	---	333	325	340	341	355	386	204	164	305	328	381
16	---	337	325	---	340	353	425	148	170	301	341	374
17	---	342	323	---	340	355	447	123	174	288	343	361
18	---	344	322	---	342	359	442	127	167	286	348	369
19	---	345	324	---	339	361	397	---	176	282	340	364
20	---	351	324	---	336	358	394	---	182	282	310	368
21	---	349	324	---	326	355	395	---	188	268	310	366
22	---	346	327	---	---	360	427	---	202	264	316	359
23	---	336	338	---	326	357	452	---	212	253	332	361
24	---	331	344	---	322	358	463	---	211	254	331	367
25	---	332	349	275	324	361	441	---	206	262	322	370
26	---	333	356	283	317	370	418	---	199	261	309	367
27	---	332	---	297	313	367	369	---	199	259	316	370
28	---	333	---	318	316	359	350	278	201	256	318	367
29	---	334	---	325	---	359	334	272	211	239	333	355
30	---	334	---	331	---	365	319	---	234	228	338	354
31	---	---	---	333	---	365	---	---	---	240	327	---
MEAN	---	331	---	---	---	350	381	---	182	---	---	354
MAX	---	351	---	---	---	370	463	---	275	---	---	381
MIN	---	297	---	---	---	319	319	---	126	---	---	324

07094500 ARKANSAS RIVER AT PARKDALE, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	7.0	5.0	3.0	1.5	1.0	.0	2.5	.0	3.5	.5
2	---	---	6.0	4.5	2.0	1.0	1.0	.0	3.5	.5	4.5	1.5
3	---	---	5.5	3.5	2.0	.5	.5	.0	3.5	2.0	5.0	2.0
4	---	---	7.0	5.0	2.5	1.5	1.0	.0	4.0	2.5	6.0	2.5
5	---	---	6.0	4.5	3.5	1.5	.5	.0	4.0	2.0	7.0	3.5
5	---	---	6.0	3.5	4.0	3.0	.5	.0	3.5	1.0	7.5	4.5
7	---	---	6.0	4.0	3.0	2.0	.0	.0	3.5	.5	8.0	5.0
8	---	---	3.5	2.0	2.5	1.5	.0	.0	4.0	1.5	7.0	4.5
9	---	---	2.0	.5	1.0	.0	.0	.0	4.5	2.0	4.0	3.0
10	---	---	2.0	1.0	.0	.0	.0	.0	5.0	2.0	6.5	3.0
11	---	---	2.5	.5	.0	.0	.5	.0	5.0	3.0	7.0	5.0
12	---	---	2.5	.5	.0	.0	.5	.0	5.0	4.0	8.5	5.0
13	---	---	1.5	.0	.5	.0	.5	.0	5.5	3.0	8.5	5.5
14	---	---	3.5	1.0	.0	.0	.5	.0	5.0	4.5	8.5	5.5
15	---	---	4.5	2.5	.5	.0	.0	.0	5.5	3.5	7.0	6.0
16	---	---	5.5	3.5	.5	.0	.0	.0	4.0	3.0	7.0	5.0
17	---	---	5.5	4.0	.5	.0	.0	.0	3.5	2.0	8.0	5.0
18	---	---	5.5	4.5	.5	.0	.0	.0	3.5	2.5	8.5	5.0
19	---	---	7.0	5.0	.5	.0	.0	.0	2.5	1.0	8.5	5.5
20	---	---	6.5	5.0	.5	.0	.0	.0	3.0	.5	8.0	5.5
21	---	---	5.5	4.0	.5	.0	.0	.0	2.5	.0	7.5	4.5
22	---	---	5.0	2.5	.5	.0	.0	.0	2.5	.0	6.5	5.0
23	---	---	4.0	2.5	.5	.0	.0	.0	2.5	.0	7.0	3.5
24	---	---	2.5	1.5	.5	.0	.0	.0	2.5	1.0	7.0	4.5
25	---	---	3.0	1.5	.5	.0	.0	.0	4.0	1.5	7.0	4.0
26	---	---	3.5	1.5	.5	.0	.0	.0	3.0	1.5	8.5	4.5
27	---	---	2.5	1.0	.5	.0	.5	.0	2.0	.5	6.5	3.5
28	---	---	3.0	1.5	1.0	.0	1.0	.0	3.0	.5	5.0	2.5
29	---	---	3.0	2.0	1.0	.0	1.0	.0	---	---	4.0	1.0
30	---	---	3.5	2.5	1.0	.0	1.0	.0	---	---	5.5	.5
31	---	---	---	---	.5	.0	2.5	.0	---	---	8.5	3.0
MONTH	---	---	7.0	.0	4.0	.0	2.5	.0	5.5	.0	8.5	.5
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.0	5.0	14.0	9.0	16.5	12.0	17.0	13.5	23.0	20.5	20.5	15.5
2	9.0	4.0	13.0	10.0	16.0	13.0	18.0	14.0	23.0	18.0	19.0	16.0
3	9.5	5.0	10.0	7.5	14.5	12.0	19.0	15.0	22.5	20.0	19.5	14.5
4	8.0	6.0	10.0	6.5	16.5	12.5	18.0	15.0	21.0	18.5	17.0	15.0
5	6.0	5.0	10.0	8.0	15.5	12.5	17.5	14.5	21.5	15.0	18.0	13.0
6	10.0	4.5	13.0	9.0	15.0	12.0	18.5	14.5	21.5	---	18.0	14.5
7	9.5	6.0	14.5	9.0	14.5	12.0	---	---	22.0	---	17.0	14.0
8	11.0	6.0	15.0	11.0	13.5	12.5	---	---	---	---	16.5	13.5
9	10.0	7.5	14.5	11.0	13.0	11.5	20.0	---	---	---	17.5	13.0
10	11.0	7.0	14.5	10.0	13.0	11.0	17.5	12.5	---	---	17.5	13.0
11	11.0	7.0	14.5	11.0	12.5	10.0	16.0	11.5	---	---	17.0	14.0
12	9.0	5.5	14.5	11.5	13.0	11.0	13.0	11.5	---	---	18.0	14.0
13	8.0	4.0	14.5	11.0	13.0	11.0	16.0	11.5	---	---	18.5	13.5
14	10.0	5.0	15.0	12.0	12.0	11.0	16.0	11.5	21.5	---	18.0	13.5
15	12.0	7.5	14.5	12.0	12.0	11.0	16.5	13.0	21.0	16.0	15.5	13.0
16	12.5	8.0	15.5	12.0	12.0	11.0	17.5	12.0	21.5	16.0	17.0	12.0
17	13.0	8.0	13.5	11.0	12.5	10.5	15.5	12.5	21.0	16.0	16.0	13.5
18	11.5	7.5	12.0	9.5	12.0	11.0	16.5	12.0	20.5	16.0	17.5	12.5
19	12.5	7.0	11.0	10.0	12.0	11.0	17.5	12.5	22.0	17.0	16.5	12.5
20	9.0	6.5	13.5	10.0	12.0	11.0	19.0	13.0	21.5	17.0	17.0	12.5
21	10.0	6.0	12.0	11.0	12.0	11.0	18.5	14.0	21.5	17.5	17.0	12.5
22	10.5	7.5	13.0	10.5	12.5	11.0	20.5	15.5	19.5	17.5	16.5	12.0
23	12.0	9.0	13.0	9.5	13.0	11.5	25.5	16.0	17.0	15.0	17.0	11.5
24	12.0	9.0	12.5	10.0	13.0	12.0	24.0	16.0	17.0	14.0	17.0	12.0
25	11.5	9.0	12.5	9.0	14.0	12.0	20.5	16.0	18.0	14.5	16.0	12.5
26	13.5	8.5	13.0	9.5	16.5	12.0	21.5	17.5	19.0	15.0	17.0	12.5
27	12.5	10.0	13.0	8.5	17.5	14.5	22.0	18.5	18.0	15.0	16.0	13.5
28	12.5	9.5	12.0	9.0	16.5	13.5	21.5	18.0	17.5	14.0	15.5	11.5
29	13.5	10.0	12.0	9.0	15.5	13.0	22.0	18.5	18.5	14.0	15.5	11.0
30	13.5	9.5	14.0	9.0	16.0	12.0	23.5	19.0	19.0	14.5	15.0	11.5
31	---	---	16.0	10.5	---	---	23.5	20.0	20.0	15.0	---	---
MONTH	13.5	4.0	16.0	6.5	17.5	10.0	---	---	---	---	20.5	11.0

07096000 ARKANSAS RIVER AT CANON CITY, CO

LOCATION.--Lat 38°26'02", long 105°15'24", in SE¼SE¼ sec.31, T.18 S., R.72 W., Fremont County, Hydrologic Unit 11020002, on right bank 800 ft upstream from Sand Creek, 0.7 mi downstream from Grape Creek, and 0.7 mi upstream from First Street Bridge in Canon City.

DRAINAGE AREA.--3,117 mi^2.

PERIOD OF RECORD.--January 1888 to current year. Monthly discharge only for some periods, published in WSP 1311. Published as "near Canyon" 1900-1906.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1311: 1897-98.

GAGE.--Water-stage recorder. Datum of gage is 5,342.13 ft above National Geodetic Vertical Datum of 1929. See WSP 1711 or 1731 for history of changes prior to Oct. 1, 1957. Oct. 1, 1957, to Nov. 15, 1962, water-stage recorder at present site at datum 1.49 ft, higher.

REMARKS.--Estimated daily discharges: Dec. 30 to Jan. 18, Jan. 24 to Feb. 5, July 12-15, 20-28, and Aug. 7-8. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 250 acres upstream from station.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--99 years, 733 ft^3/s, 531,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,000 ft^3/s, Aug. 2, 1921, gage height, 10.7 ft, site and datum then in use, from floodmark, from rating curve extended above 5,000 ft^3/s; minimum daily, 69 ft^3/s, May 13, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,680 ft^3/s at 1145 June 10, gage height, 9.40 ft; minimum daily, 280 ft^3/s, Jan. 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	477	570	548	440	390	387	519	1830	1420	1900	794	512
2	450	533	512	450	400	399	555	1820	1620	1700	860	505
3	438	540	519	440	400	405	512	1830	1920	1510	843	548
4	450	578	526	440	400	414	513	1830	2220	1420	834	519
5	450	608	505	460	410	431	525	1620	2530	1300	751	548
6	438	592	498	460	387	450	505	1540	2710	1230	684	558
7	431	587	519	460	381	470	529	1480	2900	1060	610	548
8	418	592	505	440	399	531	555	1310	3380	977	580	555
9	405	548	505	440	405	548	601	1360	4810	998	751	533
10	399	548	490	400	405	526	661	1450	5460	995	647	479
11	482	563	418	400	412	513	711	1560	4610	952	578	470
12	526	569	457	400	425	498	1060	1720	3960	900	592	457
13	498	563	484	400	425	491	959	2040	3650	900	623	431
14	516	583	477	420	431	526	800	2290	3550	860	608	414
15	548	600	484	400	431	533	797	2930	3550	840	570	412
16	533	611	498	340	412	562	959	3360	3690	848	540	418
17	514	615	512	290	412	533	1380	4630	3630	878	555	425
18	512	631	498	280	405	512	1800	4890	3330	862	563	425
19	519	639	491	285	412	519	1790	4490	3010	860	639	425
20	563	655	498	323	393	578	1790	4100	2710	850	578	418
21	592	611	491	323	369	555	1280	3490	2500	850	540	418
22	562	615	484	312	357	562	1080	3090	2340	870	585	431
23	533	615	457	405	375	555	1040	2830	2210	960	671	405
24	526	548	457	420	387	533	1180	2460	2180	930	719	393
25	512	555	457	400	402	526	1260	2310	2080	900	719	375
26	498	578	431	390	431	526	1290	2090	1920	870	735	369
27	484	563	425	390	418	533	1290	1880	1860	850	759	369
28	491	548	438	390	375	512	1380	1690	1770	860	689	375
29	526	562	438	400	---	491	1590	1550	1780	1010	608	375
30	526	563	460	390	---	484	1740	1450	1970	1050	570	369
31	491	---	450	380	---	491	---	1370	---	818	548	---
TOTAL	15308	17483	14932	12168	11249	15594	30651	72290	85270	31806	20343	13479
MEAN	494	583	482	393	402	503	1022	2332	2842	1026	656	449
MAX	592	655	548	460	431	578	1800	4890	5460	1900	860	558
MIN	399	533	418	280	357	387	505	1310	1420	818	540	369
AC-FT	30360	34680	29620	24140	22310	30930	60800	143400	169100	63090	40350	26740

CAL YR 1986 TOTAL 357615 MEAN 980 MAX 4940 MIN 240 AC-FT 709300
WTR YR 1987 TOTAL 340575 MEAN 933 MAX 5460 MIN 280 AC-FT 675500

07096500 FOURMILE CREEK NEAR CANON CITY, CO

LOCATION.--Lat 38°26'11", long 105°11'27", in NE¼SW¼ sec.35, T.18 S., R.70 W., Fremont County, Hydrologic Unit 11020002, on right bank 1,000 ft downstream from railroad bridge, 0.6 mi upstream from mouth, and 2.8 mi east of courthouse in Canon City.

DRAINAGE AREA.--434 mi².

PERIOD OF RECORD.--April to October 1910 (gage heights and discharge measurements only), October 1948 to September 1953, November 1970 to current year. Published as "Oil or Fourmile Creek" in 1910 and as Oil Creek near Canon City, 1948-53.

REVISED RECORDS.--WDR CO-84-1: 1982(M), 1983 (M); WDR CO-85-1: 1984 (M).

GAGE.--Water-stage recorder. Concrete control since Oct. 1, 1974. Elevation of gage is 5,254 ft,above National Geodetic Verticle Datum of 1929 from topographic map. April to October 1910, nonrecording gage at site 1,200 ft upstream at different datum. October 1948 to September 1953, water-stage recorder at site 0.6 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 20-31 and Apr. 24-28. Records good except those for periods of estimated daily discharges, which are fair. Diversions for irrigation of about 500 acres upstream from station. Water imported to basin from Arkansas River for irrigation of a few small orchards upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--21 years (water years 1949-53, 1972-87), 30.1 ft³/s; 21,810 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,260 ft³/s, July 11, 1951, gage height, 9.25 ft, from floodmarks, site and datum then in use, from rating curve extended above 96 ft³/s, on basis of slope-area measurement of peak flow; no flow Sept. 3-10, 1950, Sept. 23, 1951.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 17	0625	346	3.50	Aug. 9	0045	*400	*3.65

Minimum daily, 5.7 ft³/s, Feb. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	30	12	9.8	9.9	8.6	21	111	95	118	7.9	26
2	15	23	13	9.4	9.4	7.8	22	122	88	106	7.9	24
3	16	22	14	11	9.5	7.5	23	142	85	92	8.7	26
4	17	25	16	11	10	7.4	24	146	82	79	8.8	26
5	19	24	17	11	10	8.0	29	134	61	77	8.8	25
6	17	24	19	12	9.4	9.7	30	145	42	76	8.9	25
7	17	21	19	12	9.0	26	30	153	33	77	9.8	30
8	14	19	19	12	9.0	48	30	134	46	71	9.9	30
9	14	12	21	11	9.8	39	33	130	91	66	47	30
10	14	18	12	9.3	8.5	31	34	121	106	55	18	29
11	15	22	11	9.8	6.3	29	42	111	92	49	17	29
12	16	34	10	11	6.4	27	63	107	83	48	21	32
13	16	34	12	9.8	6.1	24	55	126	71	46	24	27
14	15	31	12	10	5.7	24	48	144	64	51	27	28
15	15	27	12	10	5.9	25	52	148	71	49	21	28
16	13	24	12	8.6	6.1	25	101	149	80	49	14	26
17	13	22	11	7.3	6.1	24	224	148	79	45	13	21
18	14	22	10	7.7	7.2	21	275	141	68	43	12	16
19	14	25	10	8.4	8.2	22	284	137	59	37	12	17
20	15	26	11	8.2	8.6	30	243	144	62	35	11	18
21	19	27	11	7.7	6.8	29	173	52	66	30	11	24
22	24	30	9.7	7.6	7.7	29	152	144	58	27	18	19
23	22	28	10	9.0	7.4	27	167	144	52	24	21	15
24	18	18	12	9.9	6.9	25	167	154	52	20	19	16
25	15	11	10	10	7.4	19	142	174	50	16	20	17
26	12	13	9.9	10	7.9	17	140	171	48	9.6	26	15
27	10	12	9.9	10	7.9	21	135	161	48	8.8	37	12
28	13	11	11	10	7.9	22	129	154	50	9.5	39	11
29	8.2	12	9.7	10	---	21	120	143	91	8.4	36	10
30	7.7	12	11	10	---	25	116	122	114	8.4	30	9.7
31	13	---	11	9.9	---	24	---	115	---	7.9	28	---
TOTAL	466.9	659	388.2	303.4	221.0	703.0	3104	4327	2087	1438.6	592.7	661.7
MEAN	15.1	22.0	12.5	9.79	7.89	22.7	103	140	69.6	46.4	19.1	22.1
MAX	24	34	21	12	10	48	284	174	114	118	47	32
MIN	7.7	11	9.7	7.3	5.7	7.4	21	107	33	7.9	7.9	9.7
AC-FT	926	1310	770	602	438	1390	6160	8580	4140	2850	1180	1310

CAL YR 1986 TOTAL 6704.9 MEAN 18.4 MAX 46 MIN 5.7 AC-FT 13300
WTR YR 1987 TOTAL 14952.5 MEAN 41.0 MAX 284 MIN 5.7 AC-FT 29660

07097000 ARKANSAS RIVER AT PORTLAND, CO

LOCATION.--Lat 38°23'18", long 105°00'56", in NE¼NE¼ sec.20, T.19 S., R.68 W., Fremont County, Hydrologic Unit 11020002, on right bank at bridge on State Highway 120 at Portland and 1 mi downstream from Hardscrabble Creek.

WATER-DISCHARGE RECORDS

DRAINAGE AREA.--4,024 mi^2.

PERIOD OF RECORD.--May 1939 to September 1952, October 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,021.59 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1974, at site 400 ft downstream at datum 0.03 ft, lower.

REMARKS.--Estimated daily discharges: Water year 1986, Dec. 10-17, and Feb. 9-15. Water year 1987, Dec. 10-12, and Dec. 16-24. Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions upstream from station for irrigation of about 60,000 acres and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--25 years (water years 1940-52, 1975-86), 800 ft^3/s; 579,600 acre-ft/yr. 26 years (water years 1940-52, 1975-87), 809 ft^3/s; 586,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,100 ft^3/s, June 5, 1949, gage height, 12.12 ft, from rating curve extended above 5,300 ft^3/s; minimum daily, 71 ft^3/s, Apr. 2, 1945.

EXTREMES FOR WATER YEAR 1986.--Maximum discharge, 5,160 ft^3/s at 1700 June 8, gage height, 7.02 ft; minimum daily, 256 ft^3/s, Apr. 15.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,060 ft^3/s at 1500 June 10, gage height, 7.69 ft; minimum daily, 220 ft^3/s, Jan. 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	587	636	545	525	392	352	310	348	1930	3860	977	810
2	560	560	510	520	400	356	322	424	2170	3440	1020	729
3	550	560	555	515	404	360	344	535	2370	3280	944	705
4	530	587	570	525	360	364	364	795	2920	3160	925	782
5	570	576	545	485	333	352	322	938	3420	3210	918	912
6	515	570	530	475	344	348	310	1000	3890	3540	873	653
7	490	545	535	412	340	340	344	1090	4460	3690	886	614
8	520	495	535	360	314	340	392	747	4950	3820	873	626
9	582	515	545	360	330	310	416	873	4940	3690	873	626
10	582	535	540	384	330	329	376	1100	4580	3400	834	648
11	614	525	500	384	330	310	310	1020	3690	3020	795	741
12	620	565	440	384	320	307	293	925	3160	2850	759	777
13	648	565	430	364	350	344	286	834	2790	2570	759	717
14	675	576	500	364	400	314	286	997	2910	2430	711	693
15	687	560	550	368	450	314	256	1290	3120	2310	723	653
16	670	598	540	368	460	310	341	1420	3270	2080	648	604
17	681	565	570	372	456	307	535	1660	3460	1980	609	576
18	681	620	598	364	470	344	555	1640	3710	2090	845	540
19	620	614	681	368	456	348	540	1560	3930	2200	648	530
20	598	515	687	368	447	344	545	1500	4410	2440	560	515
21	587	525	664	364	447	368	550	1740	4350	2610	609	490
22	609	530	653	333	384	340	555	1870	4070	2430	670	460
23	723	535	614	336	364	336	555	1900	3880	2200	848	447
24	735	555	604	356	368	329	576	1950	3760	2010	1040	438
25	729	582	592	344	364	322	452	1980	3720	1880	847	460
26	687	587	576	314	372	300	434	2020	3710	1720	944	490
27	570	598	570	336	368	289	495	2230	3940	1560	912	510
28	550	560	565	340	372	289	456	2300	4070	1450	808	570
29	535	560	560	356	---	293	408	2250	4490	1350	735	592
30	550	587	550	360	---	303	344	2100	3990	1220	759	648
31	587	---	560	376	---	314	---	1940	---	1050	741	---
TOTAL	18842	16901	17414	12080	10725	10176	12272	42976	110080	78540	25093	18556
MEAN	608	563	562	390	383	328	409	1386	3669	2534	809	619
MAX	735	636	687	525	470	368	576	2300	4950	3860	1040	912
MIN	490	495	430	314	314	289	256	348	1930	1050	560	438
AC-FT	37370	33520	34540	23960	21270	20180	24340	85240	218300	155800	49770	36810

CAL YR 1985 TOTAL 441756 MEAN 1210 MAX 7010 MIN 356 AC-FT 876200
WTR YR 1986 TOTAL 373655 MEAN 1024 MAX 4950 MIN 256 AC-FT 741100

07097000 ARKANSAS RIVER AT PORTLAND, CO--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	515	687	576	495	388	442	520	2230	1630	2220	834	570
2	452	648	540	510	388	447	560	2220	1840	2000	899	545
3	429	631	545	520	388	465	535	2260	2170	1760	899	576
4	465	681	550	525	376	465	520	2230	2520	1640	873	555
5	470	711	540	525	388	475	540	2020	2810	1530	777	570
6	452	687	525	452	344	500	545	2000	3000	1480	693	587
7	442	681	550	412	322	545	550	2070	3180	1320	653	592
8	420	675	545	408	344	620	592	1760	3760	1190	648	598
9	424	620	540	384	348	642	648	1790	5180	1230	814	587
10	408	592	450	336	388	614	723	1860	5840	1200	723	515
11	500	604	400	336	404	587	783	1910	4910	1150	636	500
12	592	620	450	376	416	570	1200	2040	4250	1060	648	555
13	570	620	475	388	416	555	1220	2320	3900	1120	693	520
14	582	636	465	384	420	587	1020	2660	3720	1060	664	490
15	620	648	460	380	424	592	1050	3360	3640	1010	620	500
16	604	648	470	260	404	648	1310	3770	3720	1050	550	555
17	587	658	480	230	408	614	2030	4670	3710	1110	550	510
18	576	658	480	220	404	587	2910	5180	3440	1090	535	485
19	570	664	560	240	416	582	2910	4770	3090	1090	648	490
20	626	675	592	240	392	609	2740	4270	2780	1010	565	475
21	675	636	598	280	364	555	2010	3730	2600	984	525	485
22	636	642	576	300	344	582	1520	3350	2440	964	628	485
23	592	658	560	320	392	576	1460	3060	2320	990	818	460
24	592	592	560	340	434	550	1650	2700	2300	951	789	470
25	570	587	550	376	456	535	1710	2540	2150	899	789	420
26	555	620	525	376	500	535	1690	2330	2000	834	834	416
27	545	598	505	376	495	555	1680	2140	1940	802	866	408
28	560	576	535	372	442	535	1760	1990	1880	847	802	412
29	550	576	540	380	---	505	2010	1830	2000	1090	693	412
30	555	576	530	356	---	495	2150	1700	2240	1110	642	400
31	530	---	535	356	---	515	---	1620	---	866	614	---
TOTAL	16664	19105	16207	11453	11205	17084	40546	82380	90960	36657	21922	15143
MEAN	538	637	523	369	400	551	1352	2657	3032	1182	707	505
MAX	675	711	598	525	500	648	2910	5180	5840	2220	899	598
MIN	408	576	400	220	322	442	520	1620	1630	802	525	400
AC-FT	33050	37890	32150	22720	22230	33890	80420	163400	180400	72710	43480	30040

CAL YR 1986 TOTAL 372474 MEAN 1020 MAX 4950 MIN 256 AC-FT 738800
WTR YR 1987 TOTAL 379326 MEAN 1039 MAX 5840 MIN 220 AC-FT 752400

07097000 ARKANSAS RIVER AT PORTLAND, CO--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1977 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1979 to current year.
WATER TEMPERATURE: October 1979 to current year.

INSTRUMENTATION.--Water-quality monitor since November 1982.

REMARKS.--Daily maximum and minimum specific conductance data available in district office. There was no temperature record Jan. 6 to Feb. 2, Feb. 25 to Mar. 13, June 7-9, June 29 to July 1, and Sept. 14-15, and no conductance record Jan. 7 to Feb. 2, Feb. 26 to Mar. 12, and June 13.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily observed, 1,380 microsiemens, Sept. 30, 1981; minimum, 111 microsiemens, June 22, 1984.
WATER TEMPERATURES: Maximum, 26.0°C July 27, 1987; minimum, 0.0°C many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 618 microsiemens, Mar. 30; minimum, 194 microsiemens, June 6.
WATER TEMPERATURES: Maximum, 26.0°C, July 27; minimum, 0.0°C, many days during the winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (FTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)
OCT										
21...	1300	802	439	8.4	10.5	15	10.8	96	290	180
DEC										
18...	1440	510	486	8.5	2.5	2.4	13.4	K12	25	210
FEB										
25...	0945	442	540	8.4	5.0	3.5	11.0	110	76	210
APR										
07...	0945	560	518	8.5	9.0	17	10.7	K28	48	210
JUN										
09...	1300	5410	215	8.0	15.0	92	--	K400	2100	82
AUG										
12...	0940	637	446	8.2	22.0	13	7.8	K130	940	190

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	ALKALINITY WATER DISSOLV FLD. AS CACO3 (MG/L)	CARBONATE WATER DISSOLV FIELD (MG/L AS CO3)
OCT										
21...	48	14	21	2.6	83	7.7	0.50	12	--	--
DEC										
18...	57	16	23	2.3	100	10	0.60	14	--	--
FEB										
25...	56	18	26	2.5	110	12	0.60	14	142	5
APR										
07...	56	18	27	2.7	100	10	0.60	15	151	6
JUN										
09...	23	6.0	8.1	1.6	30	2.5	0.30	8.8	60	1
AUG										
12...	52	14	20	2.5	91	7.9	0.50	13	132	5

DATE	BICARBONATE WATER DISSOLV FIELD (MG/L AS HCO3	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	PHOSPHOROUS TOTAL (MG/L AS P)	PHOSPHOROUS DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)
OCT										
21...	--	247	267	0.11	<0.01	2.0	--	0.19	0.03	<10
DEC										
18...	--	306	305	0.37	<0.01	0.30	--	0.08	0.05	--
FEB										
25...	163	320	324	0.50	0.02	1.3	0.03	0.05	0.04	20
APR										
07...	172	335	322	0.28	0.03	0.80	0.04	0.10	0.05	--
JUN										
09...	71	123	128	0.10	0.03	0.60	0.04	0.88	0.03	30
AUG										
12...	152	274	280	0.20	<0.01	0.80	--	0.14	0.03	20

K BASED ON NON-IDEAL COLONY COUNT.

07097000 ARKANSAS RIVER AT PORTLAND, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD DIS-SOLVED (UG/L AS PB)	LITHIUM, DIS-SOLVED (UG/L AS LI)
OCT										
21...	<1	62	<0.5	1	<1	<3	3	17	5	<19
FEB										
25...	<1	66	<0.5	<1	<1	<3	2	35	5	<19
JUN										
09...	<1	33	<0.5	<1	<1	<3	4	32	5	<7
AUG										
12...	<1	57	<0.5	<1	<1	<3	2	16	<5	<4

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT									
21...	24	0.1	<10	1	2	<1.0	430	<6	18
FEB									
25...	31	<0.1	<10	<1	2	<1.0	490	<6	37
JUN									
09...	14	<0.1	<10	<1	<1	<1.0	190	<6	9
AUG									
12...	14	0.3	<10	3	1	<1.0	490	<6	8

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
21...	1300	802	48	104	74
DEC					
18...	1440	510	111	153	36
FEB					
25...	0945	442	16	19	--
APR					
07...	0945	560	48	73	--
JUN					
09...	1300	5410	1260	18400	34
AUG					
12...	0940	637	48	83	39

07097000 ARKANSAS RIVER AT PORTLAND, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	449	474	453	476	---	---	578	298	275	323	379	450
2	471	463	462	497	---	---	561	302	263	325	369	465
3	454	487	466	481	555	---	553	302	236	348	360	464
4	452	490	458	493	538	---	545	309	217	352	366	469
5	454	480	467	492	536	---	551	315	202	345	377	464
6	454	462	471	495	532	---	561	327	194	326	387	461
7	472	463	466	---	511	---	548	340	195	338	400	466
8	471	458	468	---	509	---	543	351	234	353	406	467
9	483	458	479	---	511	---	523	356	215	355	416	482
10	495	461	454	---	508	---	499	353	203	336	411	483
11	480	464	492	---	509	---	482	336	204	314	448	495
12	438	452	477	---	512	---	421	316	210	324	433	504
13	446	451	519	---	522	528	429	313	---	332	454	509
14	444	460	519	---	519	512	438	297	220	331	456	515
15	428	456	523	---	512	499	443	278	218	402	443	515
16	429	448	512	---	513	515	431	262	215	374	441	503
17	433	461	517	---	529	525	398	233	206	340	435	554
18	433	448	507	---	539	537	362	196	211	338	438	516
19	432	455	508	---	532	536	322	196	220	342	408	512
20	428	438	489	---	514	534	305	202	230	346	417	514
21	441	448	481	---	530	543	314	194	237	350	432	513
22	443	439	487	---	538	532	358	204	234	353	516	510
23	437	437	483	---	543	540	365	214	238	345	483	508
24	435	456	485	---	561	547	360	234	240	346	483	527
25	442	447	476	---	563	557	346	248	243	354	460	532
26	443	433	486	---	---	551	350	266	251	356	430	531
27	450	432	496	---	---	557	358	274	264	360	399	539
28	458	441	492	---	---	556	376	270	269	344	378	535
29	445	443	480	---	---	561	346	268	287	357	386	538
30	451	441	466	---	---	562	---	269	290	394	391	542
31	462	---	486	---	---	586	---	272	---	414	408	---
MEAN	450	455	485	---	---	---	---	277	---	349	420	503
MAX	495	490	523	---	---	---	---	356	---	414	516	554
MIN	428	432	453	---	---	---	---	194	---	314	360	450

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.0	9.5	7.0	4.0	6.0	3.0	1.0	.0	---	---	---	---
2	18.5	11.5	6.0	3.0	5.5	2.5	.5	.0	---	---	---	---
3	14.5	13.0	8.0	4.0	5.0	1.5	2.0	.0	7.5	2.0	---	---
4	16.0	11.0	9.5	6.5	5.0	2.5	3.5	.0	7.5	2.5	---	---
5	15.5	11.0	10.0	6.5	6.0	2.5	3.5	.5	8.5	2.5	---	---
6	17.5	12.0	9.5	6.0	6.0	4.5	---	---	9.0	3.5	---	---
7	18.0	12.5	8.5	6.0	5.0	3.5	---	---	10.0	4.5	---	---
8	17.0	12.5	6.5	3.0	5.0	2.5	---	---	8.0	5.0	---	---
9	17.0	13.5	5.5	2.0	3.0	.5	---	---	9.5	5.0	---	---
10	15.0	12.5	3.5	1.0	.5	.5	---	---	7.5	5.5	---	---
11	13.5	8.5	5.5	.5	.5	.5	---	---	8.0	5.5	---	---
12	8.0	5.5	3.0	1.5	1.0	.5	---	---	6.5	5.0	---	---
13	10.0	4.0	4.0	.5	2.5	.5	---	---	5.5	4.0	---	---
14	11.5	6.5	6.5	1.5	4.0	.5	---	---	6.0	3.5	11.5	5.5
15	12.5	7.5	8.0	3.5	3.5	.5	---	---	4.0	1.5	10.0	7.0
16	13.0	8.5	8.5	5.0	4.0	.5	---	---	5.5	.0	9.0	5.5
17	13.0	8.5	9.0	5.5	3.5	1.0	---	---	5.0	.0	10.0	6.0
18	13.0	8.5	8.5	6.0	2.5	.5	---	---	5.0	.0	11.5	6.0
19	12.5	9.0	10.0	5.5	3.5	.5	---	---	6.0	.0	12.5	6.5
20	12.5	9.5	9.5	6.0	3.0	.0	---	---	4.0	1.0	10.5	6.5
21	12.5	8.5	9.0	5.5	3.5	.0	---	---	6.0	2.5	10.5	4.0
22	13.0	8.5	6.0	4.5	3.0	.0	---	---	5.5	2.5	8.5	5.5
23	13.5	10.0	6.5	3.0	3.0	.0	---	---	7.5	2.5	10.0	4.5
24	13.5	10.0	6.0	2.5	2.5	.0	---	---	6.0	.5	9.0	4.0
25	13.5	9.0	5.5	3.0	2.0	.0	---	---	---	---	9.5	3.5
26	12.5	8.5	5.5	3.0	1.0	.0	---	---	---	---	11.0	4.0
27	12.0	8.0	6.0	2.5	1.5	.0	---	---	---	---	7.0	4.0
28	12.5	8.0	6.5	3.0	2.5	.0	---	---	---	---	7.0	2.5
29	12.5	8.0	7.0	3.5	2.5	.0	---	---	---	---	4.0	1.0
30	12.5	8.5	5.0	3.5	1.5	.0	---	---	---	---	7.0	.0
31	10.0	7.5	---	---	1.5	.0	---	---	---	---	11.0	3.0
MONTH	18.5	4.0	10.0	.5	6.0	.0	---	---	---	---	---	---

07097000 ARKANSAS RIVER AT PORTLAND, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.5	5.5	14.5	11.0	18.5	14.0	---	---	25.0	20.0	22.5	17.0
2	11.5	5.0	14.5	11.5	17.5	14.0	21.5	17.5	24.0	19.0	21.5	17.0
3	13.0	5.5	11.5	8.5	14.5	11.5	22.5	18.5	21.0	18.5	21.5	15.5
4	11.0	7.0	11.0	7.5	16.5	12.0	21.5	19.0	22.5	17.0	20.0	16.5
5	7.5	5.5	11.0	9.0	15.5	13.0	22.0	18.0	24.5	18.5	20.0	15.0
6	12.5	5.0	13.5	9.5	15.0	12.5	22.5	18.0	24.0	17.5	20.0	15.0
7	12.5	6.5	16.0	9.5	---	---	22.0	17.5	23.0	19.5	19.0	15.5
8	14.0	6.5	17.0	11.0	---	---	20.0	17.0	24.5	19.0	20.0	15.0
9	12.5	8.5	15.0	11.5	---	---	20.0	---	21.5	19.0	20.0	14.5
10	14.0	8.5	17.0	11.0	16.0	13.5	21.0	---	23.5	18.0	19.5	14.5
11	14.0	8.0	17.0	11.5	17.0	14.0	19.5	17.0	24.5	18.5	19.0	14.5
12	10.5	5.0	16.5	12.5	17.0	14.0	17.5	16.0	22.5	19.0	20.0	15.0
13	10.0	4.0	16.5	12.5	17.5	14.5	20.5	15.5	22.5	18.0	20.0	15.0
14	11.5	4.5	16.0	13.0	16.5	14.5	22.0	16.0	22.0	17.5	---	---
15	14.0	8.0	16.5	13.5	17.5	14.5	23.0	17.0	23.0	17.0	---	---
16	14.0	9.0	17.0	12.5	18.0	15.0	22.5	17.5	23.0	17.0	19.0	13.0
17	13.5	8.0	15.5	13.0	18.0	14.5	21.0	17.5	23.0	17.0	18.5	14.5
18	12.5	7.5	14.5	11.5	18.5	15.5	21.0	16.5	22.5	17.0	19.0	14.0
19	13.0	7.5	13.0	11.5	19.0	16.0	22.0	16.0	23.5	17.5	19.0	13.5
20	9.5	7.5	15.5	11.5	20.0	17.0	22.5	17.0	22.0	17.5	19.0	13.5
21	12.5	6.0	14.0	12.5	19.5	17.0	23.5	17.5	22.5	18.0	18.5	13.5
22	14.5	7.5	15.5	11.5	20.0	16.0	24.5	18.5	20.0	17.0	18.5	12.5
23	16.0	9.5	14.5	12.0	20.5	17.5	24.0	19.5	17.0	15.0	18.5	13.0
24	15.5	10.0	13.5	12.0	21.0	17.5	23.5	19.5	18.0	15.0	19.0	13.5
25	14.5	10.5	15.0	11.0	21.0	18.0	24.5	18.5	20.5	15.5	18.5	13.0
26	16.0	10.5	15.5	11.5	21.0	18.0	25.5	19.5	20.0	16.5	19.0	13.0
27	14.5	12.0	15.5	10.5	21.5	18.0	26.0	20.0	19.5	15.5	16.5	13.5
28	16.0	11.5	13.5	11.0	20.0	17.5	23.5	19.0	20.0	15.0	18.0	12.5
29	15.5	12.0	15.0	11.0	---	---	23.5	19.0	21.0	15.0	17.5	12.0
30	15.0	11.5	16.0	10.5	---	---	24.5	19.5	20.5	15.5	17.5	12.0
31	---	---	17.5	12.5	---	---	25.5	20.0	21.5	16.0	---	---
MONTH	16.0	4.0	17.5	7.5	---	---	---	---	25.0	15.0	---	---

07099215 TURKEY CREEK NEAR FOUNTAIN, CO

LOCATION.--Lat 38°36'42", long 104°53'39", in NW¼SE¼ sec.33, T.16 S., R.67 W., El Paso County, Hydrologic Unit 1120002, on Fort Carson Military Reservation, on right bank 100 ft downstream from State Highway 115 bridge, 0.7 m downstream from Turkey Canyon, 0.8 mi upstream from Turkey Creek Ranch, and 9.4 mi southwest of Fountain.

DRAINAGE AREA.--13.0 mi².

PERIOD OF RECORD.--Streamflow records, May 1978 to current year. Water-Quality data available, May 1978 to September 1982.

REVISED RECORDS.--WDR CO-80-1: 1978(M), 1979(M).

GAGE.--Water-stage recorder. Elevation of gage is 6,420 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 12, Dec. 7-16, and Mar. 11 to May 16. Records fair except for estimated daily discharges, and those above 150 ft³/s, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years, 2.08 ft³/s; 1,510 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,020 ft³/s, July 28, 1982, gage height, 4.70 ft, from rating curve extended above 140 ft³/s; no flow many days some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 23	2000	20	2.70	June 15	1715	*31	*2.88
May 24	1115	17	2.68				

No flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.03	.26	.00	.00	.00	1.1	1.3	4.9	2.9	.15	.32
2	.00	.00	.17	.00	.00	.00	.80	2.0	4.1	2.3	.40	.32
3	.00	.00	.30	.00	.00	.00	.60	1.4	3.9	2.9	.33	.32
4	.20	.00	.49	.00	.00	.49	.55	1.2	3.7	2.5	.32	.32
5	.00	.00	.50	.00	.00	.94	.50	1.0	3.3	2.3	.16	.37
6	.00	.00	.33	.00	.00	.85	.50	1.1	2.9	2.1	.11	.69
7	.00	.00	.27	.00	.00	.62	.50	1.2	2.6	1.9	.24	.53
8	.00	.02	.14	.00	.00	1.4	.50	1.3	3.2	1.8	.96	.59
9	.00	.62	.06	.00	.00	2.5	.50	1.4	4.8	1.7	1.8	.38
10	.00	.41	.04	.00	.00	2.2	.50	1.5	4.0	1.7	1.3	.32
11	.01	.48	.03	.00	.00	2.0	.50	1.7	3.4	1.5	1.6	.32
12	.08	.46	.02	.00	.00	1.9	.80	1.9	3.2	1.5	1.8	.32
13	.15	.94	.02	.00	.00	1.8	.50	2.1	3.0	1.5	1.7	.32
14	.08	1.3	.01	.00	.00	1.8	.50	2.5	2.8	1.4	2.5	.32
15	.08	.75	.01	.00	.00	1.8	.50	2.7	3.1	1.2	1.3	.32
16	.08	.26	.01	.00	.00	3.0	5.0	2.4	2.6	1.1	.72	.32
17	.09	.07	.00	.00	.00	2.5	10	3.0	2.3	1.5	.42	.32
18	.07	.09	.00	.00	.00	2.1	2.0	4.0	2.2	1.3	.38	.32
19	.04	.07	.00	.00	.00	2.0	5.0	6.0	2.2	1.0	.37	.32
20	.13	.05	.00	.00	.00	2.5	2.0	8.5	1.8	.88	.32	.32
21	.03	.06	.00	.00	.00	2.0	1.0	8.7	1.8	.74	.35	.32
22	.02	.04	.00	.00	.00	1.5	2.0	10	1.6	.62	.59	.32
23	.01	.04	.00	.00	.00	1.1	15	15	1.6	.55	.59	.32
24	.01	.23	.00	.00	.00	1.0	11	17	1.5	.44	.35	.32
25	.02	1.1	.00	.00	.00	1.0	4.0	16	1.5	.38	.44	.33
26	.02	.41	.00	.00	.00	1.5	2.0	14	1.4	.32	.51	.33
27	.02	.27	.00	.00	.00	1.2	1.1	12	1.2	.25	2.6	.32
28	.02	.64	.00	.00	.00	1.0	1.0	9.6	1.2	.23	.96	.32
29	.02	.15	.00	.00	---	.90	1.1	8.4	2.4	.22	.65	.32
30	.03	.12	.00	.00	---	.80	1.2	7.3	4.7	.17	.48	.33
31	.02	---	.00	.00	---	1.3	---	5.9	---	.14	.39	---
TOTAL	1.23	8.61	2.66	.00	.00	43.70	72.25	172.1	82.9	39.04	24.79	10.59
MEAN	.04	.29	.09	.00	.00	1.41	2.41	5.55	2.76	1.26	.80	.35
MAX	.20	1.3	.50	.00	.00	3.0	15	17	4.9	2.9	2.6	.69
MIN	.00	.00	.00	.00	.00	.00	.50	1.0	1.2	.14	.11	.32
AC-FT	2.4	17	5.3	.0	.0	87	143	341	164	77	49	21

CAL YR 1986 TOTAL 84.58 MEAN .23 MAX 8.2 MIN .00 AC-FT 168
WTR YR 1987 TOTAL 457.87 MEAN 1.25 MAX 17 MIN .00 AC-FT 908

07099220 LITTLE TURKEY CREEK NEAR FOUNTAIN, CO

LOCATION.--Lat 38°37'37", long 104°51'55", in SW¼NW¼ sec.26, T.16 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on Fort Carson Military Reservation, at right upstream end of bridge on military road No. 11, 1.0 mi downstream from State Highway 115, 2.8 mi upstream from mouth, and 9.1 mi southwest of Fountain.

DRAINAGE AREA.--9.59 mi^2.

PERIOD OF RECORD.--Streamflow records, May 1978 to current year. Water-Quality data available, May to June 1979, August 1981 to September 1982

GAGE.--Water-stage recorder. Elevation of gage is 6,395 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Mar. 1-9. Records good. Several observations of water temperature and specific conductance were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years, 1.57 ft^3/s; 1,140 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 226 ft^3/s, July 28, 1982; gage height, 4.57 ft; no flow most of time each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 11	0015	11	1.37	May 23	0645	*25	*1.60
Apr. 18	2345	24	1.58	June 8	2230	24	1.58
May 2	0330	14	1.41	June 15	1800	14	1.42
May 8	0415	14	1.42	June 30	0230	18	1.49

No flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	3.0	8.6	7.6	9.1	.00	.02
2	.00	.00	.00	.00	.00	.00	2.8	8.7	2.4	6.4	.00	.04
3	.00	.00	.00	.00	.00	.00	2.1	7.9	2.1	5.9	.00	.06
4	.00	.00	.00	.00	.00	.00	2.2	6.9	1.9	3.8	.00	.06
5	.00	.00	.00	.00	.00	.00	2.2	6.5	1.5	2.5	.00	.06
6	.00	.00	.00	.00	.00	.00	2.2	9.3	1.2	2.3	.00	.06
7	.00	.00	.00	.00	.00	.00	2.4	10	1.2	2.0	.00	.03
8	.00	.00	.00	.00	.00	.00	2.5	12	9.9	1.8	.00	.03
9	.00	.00	.00	.00	.00	.00	2.5	13	14	1.6	.00	.02
10	.00	.00	.00	.00	.00	.00	3.3	13	13	1.5	.00	.02
11	.00	.00	.00	.00	.00	.00	7.2	12	12	1.2	.00	.01
12	.00	.00	.00	.00	.00	.00	9.3	12	10	1.2	.00	.01
13	.00	.00	.00	.00	.00	.00	9.2	11	9.9	1.2	.00	.01
14	.00	.00	.00	.00	.00	.00	7.7	11	8.9	1.2	.00	.00
15	.00	.00	.00	.00	.00	.00	8.1	12	9.0	.87	.00	.00
16	.00	.00	.00	.00	.00	.00	10	12	11	.80	.00	.00
17	.00	.00	.00	.00	.00	.06	13	11	8.9	.75	.00	.00
18	.00	.00	.00	.00	.00	.44	19	11	6.4	.96	.00	.00
19	.00	.00	.00	.00	.00	.33	20	10	4.8	.51	.00	.00
20	.00	.00	.00	.00	.00	.73	16	9.7	3.3	.35	.00	.00
21	.00	.00	.00	.00	.00	.82	11	12	5.1	.29	.00	.00
22	.00	.00	.00	.00	.00	1.1	9.1	13	5.8	.26	.00	.00
23	.00	.00	.00	.00	.00	1.3	9.2	19	2.6	.26	.00	.00
24	.00	.00	.00	.00	.00	2.4	7.1	21	2.7	.25	.00	.00
25	.00	.00	.00	.00	.00	3.4	5.4	20	2.5	.12	.00	.00
26	.00	.00	.00	.00	.00	5.4	5.4	21	2.3	.09	.00	.00
27	.00	.00	.00	.00	.00	6.2	5.8	19	2.2	.03	.00	.00
28	.00	.00	.00	.00	.00	4.5	6.2	17	1.6	.01	.00	.00
29	.00	.00	.00	.00	---	4.5	6.8	14	4.7	.00	.00	.00
30	.00	.00	.00	.00	---	3.6	7.2	14	13	.00	.00	.00
31	.00	---	.00	.00	---	3.1	---	13	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	37.88	217.9	390.6	181.5	47.25	.00	.43
MEAN	.00	.00	.00	.00	.00	1.22	7.26	12.6	6.05	1.52	.00	.01
MAX	.00	.00	.00	.00	.00	6.2	20	21	14	9.1	.00	.06
MIN	.00	.00	.00	.00	.00	.00	2.1	6.5	1.2	.00	.00	.00
AC-FT	.0	.0	.0	.0	.0	75	432	775	360	94	.0	.9

CAL YR 1986 TOTAL 2.21 MEAN .01 MAX .65 MIN .00 AC-FT 4.4
WTR YR 1987 TOTAL 875.56 MEAN 2.40 MAX 21 MIN .00 AC-FT 1740

07099230 TURKEY CREEK ABOVE TELLER RESERVOIR NEAR STONE CITY, CO

LOCATION.--Lat 38°27'37", long 104°49'19", in NW¼NE¼ sec.30, T.18 S., R.66 W., Pueblo County, Hydrologic Unit 11020002, on Fort Carson Military Reservation, on left bank, 0.5 mi west of intersection of military roads 9 and 1, 1.6 mi upstream from Teller Reservoir Dam and 2.4 mi northeast of Stone City.

DRAINAGE AREA.--62.5 mi².

PERIOD OF RECORD.--Streamflow records, May 1978 to current year. Water-quality data available, May 1978 to September 1981.

GAGE.--Water-stage recorder. Elevation of gage is 5,520 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 15 and May 14-18. Records good except those above 100 ft³/s and those for estimated daily discharges, which are poor. Diversions upstream from gage for irrigation, amount unknown. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years, 5.08 ft³/s; 3,680 acre-ft/year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,640 ft³/s, Aug. 20, 1932, gage height, 11.51 ft, from rating curve extended above 100 ft³/s, on the basis of slope-area measurements at gage heights 8.04 ft, and 11.27 ft, maximum gage height, 11.88 ft, June 8, 1987; no flow many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 24	0930	111	9.92	June 30	0615	46	9.95
June 8	1945	*2,760	*b11.88	July 3	0700	351	10.46
June 16	0100	24	9.83	Aug. 27	2100	1,610	b11.31

b From rating curve extended above 100 ft³/s on basis of slope area measurement at gage height of 11.27 ft.
Minimum daily discharge, 0.09 ft³/s, Oct. 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.30	.35	.30	.35	.35	.43	5.7	30	11	.61	.78
2	.11	.30	.35	.30	.35	.35	.42	6.5	24	7.2	.68	.69
3	.11	.30	.35	.30	.35	.35	.39	7.7	21	27	.91	.64
4	.10	.30	.38	.30	.35	.35	.39	6.3	20	6.2	.79	.65
5	.10	.27	.39	.32	.35	.38	.39	5.6	15	6.5	.62	.63
6	.09	.20	.39	.35	.31	.39	.39	7.0	12	6.2	.58	.72
7	.11	.19	.39	.35	.30	.39	.39	7.6	10	6.3	.61	.62
8	.14	.18	.39	.35	.30	.39	.39	8.2	156	5.1	1.7	.53
9	.13	.18	.39	.31	.30	.39	.37	10	34	4.0	2.6	.45
10	.12	.20	.39	.30	.30	.40	.35	11	31	3.1	1.2	.42
11	.14	.21	.39	.30	.30	.43	.35	12	27	2.7	.91	.43
12	.14	.22	.41	.30	.30	.43	.35	13	25	2.8	.88	.40
13	.12	.22	.43	.30	.30	.43	.31	15	20	3.0	.72	.38
14	.13	.22	.43	.30	.30	.43	.30	19	14	2.5	.77	.40
15	.15	.22	.43	.30	.30	.43	.30	21	12	2.0	.89	.52
16	.17	.23	.43	.30	.33	.47	.30	25	15	1.7	.80	.37
17	.18	.29	.38	.26	.35	.44	.30	21	9.3	1.4	.68	.37
18	.19	.35	.35	.26	.35	.43	3.4	19	8.0	1.8	.60	.39
19	.18	.37	.36	.26	.34	.43	6.5	19	7.0	1.5	.59	.39
20	.18	.39	.35	.23	.30	.40	2.3	25	5.7	1.3	.54	.35
21	.20	.39	.34	.22	.28	.39	.57	33	4.7	1.1	.51	.35
22	.18	.41	.35	.22	.30	.39	.39	42	5.3	.98	.72	.37
23	.18	.43	.33	.22	.30	.39	.43	61	5.5	.88	1.6	.39
24	.18	.39	.30	.22	.30	.39	.83	90	5.8	.83	1.1	.40
25	.18	.39	.30	.30	.30	.39	1.2	97	4.0	.81	.87	.39
26	.18	.43	.28	.32	.30	.39	1.5	93	3.3	.79	1.4	.39
27	.19	.43	.26	.35	.32	.43	2.6	88	3.0	.79	110	.40
28	.20	.43	.26	.35	.35	.43	2.8	72	2.4	.69	5.4	.41
29	.20	.43	.26	.35	---	.43	3.3	59	2.6	.64	1.4	.43
30	.21	.38	.26	.35	---	.43	4.1	48	18	.62	.99	.46
31	.23	---	.28	.35	---	.43	---	37	---	.62	.91	---
TOTAL	4.86	9.25	10.95	9.24	8.88	12.55	36.04	984.6	550.6	112.05	142.58	14.12
MEAN	.16	.31	.35	.30	.32	.40	1.20	31.8	18.4	3.61	4.60	.47
MAX	.23	.43	.43	.35	.35	.47	6.5	97	156	27	110	.78
MIN	.09	.18	.26	.22	.28	.35	.30	5.6	2.4	.62	.51	.35
AC-FT	9.6	18	22	18	18	25	71	1950	1090	222	283	28

CAL YR 1986 TOTAL 292.48 MEAN .80 MAX 33 MIN .06 AC-FT 580
WTR YR 1987 TOTAL 1895.72 MEAN 5.19 MAX 156 MIN .09 AC-FT 3760

07099233 TELLER RESERVOIR NEAR STONE CITY, CO

LOCATION.--Lat 38°26'33", long 104°49'31", in SE¼NW¼ sec.31, T.18 S., R.66W., in Pueblo County, Hydrologic Unit 11020002, at left upstream end of dam on Turkey Creek on Fort Carson Military Reservation, 1.4 mi upstream from Booth Gulch, and 2.0 mi east of Stone City.

DRAINAGE AREA.--71.5 mi².

PERIOD OF RECORD.--September 1978 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,453 ft above National Geodetic Datum of 1929, from topographic map.

REMARKS.--Estimated contents (at 2400): Jan. 6-20. Records good. Reservoir is formed by an earthfill dam completed in about 1908. Maximum capacity of reservoir is 1,780 acre-ft at an uncontrolled spillway elevation of about 88 ft, 1980 survey. There is no controlled outlet from reservoir, however, considerable leakage occurs. Reservoir is used for recreation and for amphibious training for Fort Carson.

EXTREMES (at 2400) FOR PERIOD OF RECORD.--Maximum contents, 2,210 acre-ft, June 21, 1980, elevation, 90.15 ft, from capacity curve extended above 88 ft; no contents, May 1 to June 5, 1979.

EXTREMES (at 2400) FOR CURRENT YEAR.--Maximum contents, 1,850 acre-ft, June 8, elevation, 88.34 ft; minimum contents, 551 acre-ft, Apr. 18, elevation, 78.83 ft.

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	680	633	604	585	585	581	567	1100	1760	1720	1500	1410
2	678	633	602	584	585	582	568	1140	1750	1710	1490	1400
3	676	633	601	584	585	583	567	1190	1740	1720	1480	1390
4	675	631	601	585	583	584	566	1240	1740	1720	1470	1380
5	674	630	599	586	582	584	566	1280	1730	1710	1470	1380
6	672	630	598	586	583	584	564	1330	1730	1700	1470	1370
7	669	627	597	586	582	583	564	1370	1720	1710	1460	1370
8	667	626	597	586	581	582	564	1410	1850	1700	1450	1360
9	665	624	597	586	581	582	562	1450	1800	1700	1460	1360
10	664	622	595	586	580	582	561	1490	1780	1690	1460	1350
11	658	622	595	585	579	581	560	1530	1770	1680	1450	1340
12	657	620	595	585	579	580	558	1570	1760	1670	1450	1330
13	656	614	594	585	577	579	557	1610	1750	1670	1440	1330
14	651	615	594	585	579	578	557	1670	1740	1660	1440	1320
15	650	611	593	585	579	577	557	1700	1740	1650	1430	1320
16	648	612	591	584	578	584	555	1730	1740	1650	1430	1320
17	648	611	591	584	577	583	554	1750	1730	1630	1420	1310
18	646	609	590	584	577	582	551	1760	1720	1630	1410	1310
19	645	608	589	584	579	582	566	1770	1720	1620	1410	1300
20	645	608	590	584	579	579	603	1790	1710	1610	1400	1290
21	644	608	590	584	579	579	644	1790	1700	1600	1390	1280
22	644	608	589	583	579	578	686	1790	1700	1600	1390	1280
23	642	608	589	582	579	576	727	1800	1700	1580	1390	1280
24	640	608	588	581	579	574	773	1820	1700	1570	1390	1270
25	639	607	587	582	579	573	817	1820	1700	1560	1380	1270
26	637	607	586	583	583	572	858	1810	1690	1550	1380	1260
27	636	607	586	581	582	572	906	1800	1680	1540	1410	1260
28	635	607	586	583	581	570	958	1790	1680	1530	1430	1250
29	632	606	586	584	---	567	1010	1780	1680	1520	1430	1250
30	631	603	585	584	---	568	1050	1770	1710	1520	1420	1240
31	630	---	585	584	---	568	---	1770	---	1500	1410	---
MAX	680	633	604	586	585	584	1050	1820	1850	1720	1500	1410
MIN	630	603	585	581	577	567	551	1100	1680	1500	1380	1240

07099235 TURKEY CREEK NEAR STONE CITY, CO

LOCATION.--Lat 38°26'27", long 104°49'31", in SE¼NW¼ sec. 31, T. 18 S., R. 66 W., Pueblo County, Hydrologic Unit 11020002, on Fort Carson Military Reservation, on left bank, 0.6 mi downstream from Teller Reservoir Dam 0.5 mi upstream from military road No. 11, and 2.1 mi southeast of Stone City.

DRAINAGE AREA.--71.5 mi^2.

PERIOD OF RECORD.--May 1978 to November 1984; June 12, 1987 to September 30, 1987.

REVISED RECORDS.--WDR CO-80-1: 1979 (M).

GAGE.--Water-stage recorder. Elevation of gage is 5,400 ft above National Geodetic Datum of 1929, from topographic map. Prior to June 12, 1987, at site 0.5 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Teller Reservoir 0.6 mi upstream. Gage records seepage from reservoir. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--5 years, (water years 1979-83), 0.66 ft^3/s; 478 acre-ft/year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3.8 ft^3/s, June 3, 1981, gage height, 0.80 ft, at different datum; minimum daily, 0.01 ft^3/s, many days.

EXTREMES FOR PERIOD JUNE TO SEPTEMBER.--Maximum discharge, 3.5 ft^3/s at 0830 July 14, gage height, 5.40 ft; minimum daily, 0.91 ft^3/s, Sept. 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	3.0	2.3	1.7
2	---	---	---	---	---	---	---	---	---	3.0	2.3	1.7
3	---	---	---	---	---	---	---	---	---	3.0	2.2	1.7
4	---	---	---	---	---	---	---	---	---	3.2	2.3	1.6
5	---	---	---	---	---	---	---	---	---	3.3	2.2	1.6
6	---	---	---	---	---	---	---	---	---	3.4	2.0	1.6
7	---	---	---	---	---	---	---	---	---	3.4	2.0	1.7
8	---	---	---	---	---	---	---	---	---	3.2	1.9	1.6
9	---	---	---	---	---	---	---	---	---	3.1	1.9	1.6
10	---	---	---	---	---	---	---	---	---	3.3	2.0	1.5
11	---	---	---	---	---	---	---	---	---	3.3	1.9	1.6
12	---	---	---	---	---	---	---	---	---	3.4	1.9	1.5
13	---	---	---	---	---	---	---	---	2.9	3.4	1.9	1.5
14	---	---	---	---	---	---	---	---	2.8	3.5	1.8	1.5
15	---	---	---	---	---	---	---	---	2.7	3.3	1.8	1.6
16	---	---	---	---	---	---	---	---	2.6	3.2	1.8	1.5
17	---	---	---	---	---	---	---	---	2.5	3.1	1.7	1.5
18	---	---	---	---	---	---	---	---	2.5	3.0	1.7	1.5
19	---	---	---	---	---	---	---	---	2.4	2.8	1.7	1.4
20	---	---	---	---	---	---	---	---	2.4	2.8	1.7	1.3
21	---	---	---	---	---	---	---	---	2.4	2.7	1.7	1.3
22	---	---	---	---	---	---	---	---	2.4	2.6	1.8	1.3
23	---	---	---	---	---	---	---	---	2.4	2.6	1.7	1.2
24	---	---	---	---	---	---	---	---	2.5	2.5	1.7	1.2
25	---	---	---	---	---	---	---	---	2.5	2.5	1.7	1.1
26	---	---	---	---	---	---	---	---	2.7	2.4	1.7	1.1
27	---	---	---	---	---	---	---	---	2.8	2.4	1.7	1.0
28	---	---	---	---	---	---	---	---	2.8	2.4	1.7	.95
29	---	---	---	---	---	---	---	---	3.0	2.4	1.7	.91
30	---	---	---	---	---	---	---	---	3.1	2.2	1.7	.92
31	---	---	---	---	---	---	---	---	---	2.1	1.7	---
TOTAL	---	---	---	---	---	---	---	---	---	90.5	57.8	42.18
MEAN	---	---	---	---	---	---	---	---	---	2.92	1.86	1.41
MAX	---	---	---	---	---	---	---	---	---	3.5	2.3	1.7
MIN	---	---	---	---	---	---	---	---	---	2.1	1.7	.91
AC-FT	---	---	---	---	---	---	---	---	---	180	115	84

07099350 PUEBLO RESERVOIR NEAR PUEBLO, CO

LOCATION.--Lat 38°16'15", long 104°43'30", in NE¼ sec.36, T.20 S., R.66 W., Pueblo County, Hydrologic Unit 11020002, at dam on Arkansas River 7 mi west of Pueblo.

DRAINAGE AREA.--4,669 mi².

PERIOD OF RECORD.--January 1974 to current year.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929, (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above National Geodetic Vertical datum of 1929.

REMARKS.--Reservoir is formed by concrete and earthfill dam. Storage began Jan. 9, 1974; dam completed in August 1975. Capacity, 357,700 acre-ft at elevation 4,898.70 ft, crest of spillway. Dead storage, 3,730 acre-ft, below elevation 4,764.00 ft, invert of river outlet. Reservoir is terminal reservoir of the Fryingpan-Arkansas project and is used to provide flood control, municipal and industrial supplies, and to fulfill irrigation requirements in the Arkansas River valley. Figures given are total contents.

COOPERATION.--Records provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 295,480 acre-ft, Feb. 12, 1985, elevation, 4,886.94 ft; minimum since appreciable storage was attained, 22,680 acre-ft, Nov. 13, 1974, elevation, 4,790.50 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 271,060 acre-ft, Feb. 5, elevation, 4,881.88 ft; minimum, 229,780 acre-ft, Sept. 30, elevation, 4,872.65 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	4,877.74	252,000	-
Oct. 31	4,877.44	250,650	-1,350
Nov. 30	4,880.75	265,770	+15,120
Dec. 31	4,880.48	264,520	-1,250
CAL YR 1986			-13,120
Jan. 31	4,881.79	270,630	+6,110
Feb. 28	4,881.74	270,400	-230
Mar. 31	4,881.61	269,790	-610
Apr. 30	4,880.36	263,960	-5,830
May 31	4,880.47	264,470	+510
June 30	4,880.59	265,020	+550
July 31	4,877.85	252,490	-12,530
Aug. 31	4,873.38	232,880	-19,610
Sept. 30	4,872.65	229,780	-3,100
WTR YR 1987			-22,220

07099400 ARKANSAS RIVER ABOVE PUEBLO, CO

LOCATION.--Lat 38°16'17", long 104°43'06", in NE¼NE¼ sec.36, T.20 S., R.66 W., Pueblo County, Hydrologic Unit 11020002, on left bank 450 ft downstream from headgate of West Pueblo ditch, 0.4 mi downstream from Pueblo Dam, and 7 mi west of Pueblo.

DRAINAGE AREA.--4,670 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Streamflow records, October 1965 to current year. Water-quality data available, October 1965 to September 1970, Dec. 1985 to current year. Sediment data available October 1965 to September 1970.

GAGE.--Water-stage recorder. Elevation of gage is 4,740 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Mar. 23, 1967, at site 730 ft upstream at datum 1.23 ft, higher. May 24, 1974, to Feb. 24, 1975, at site 2,000 ft downstream,at different datum.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions upstream from station for irrigation of about 88,000 acres and return flow from irrigated areas. Flow completely regulated by Pueblo Reservoir (station 07099350) since Jan. 9, 1974.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--8 years (water years 1966-73), 643 ft³/s; 465,900 acre-ft/yr, prior to completion of Pueblo Dam; 13 years (1975-87), 775 ft³/s; 561,500 acre-ft/yr, subsequent to completion of Pueblo Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft³/s, Aug. 1, 1966, gage height, 9.4 ft, from floodmarks, present site and datum, from rating curve extended above 1,600 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 28 ft³/s, May 11, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,430 ft³/s at 1130 June 12, gage height, 7.11 ft; minimum daily, 65 ft³/s, Nov. 15-20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	710	575	610	480	406	565	505	2050	1460	2340	1050	510
2	611	650	650	480	406	500	535	2060	1510	1960	1040	485
3	332	685	650	480	435	470	580	2140	1880	1560	1040	510
4	378	660	650	480	450	475	580	2290	2500	1550	1130	520
5	402	645	650	455	475	470	580	2170	2650	1290	1140	530
6	390	700	650	410	490	495	570	2060	2780	1360	812	545
7	374	716	650	349	485	515	660	2020	2960	1220	705	555
8	363	716	650	310	485	515	848	1830	3370	1030	695	545
9	352	716	650	282	485	600	866	1660	4310	1070	812	520
10	338	630	585	276	513	645	960	1730	5020	1150	932	520
11	335	560	470	276	530	645	1040	1840	5320	1130	824	450
12	402	575	402	276	530	645	1040	1910	5380	1030	690	465
13	510	615	410	276	530	645	1370	2090	4520	1090	728	485
14	540	456	420	276	530	645	1550	2470	3840	1050	740	455
15	580	65	420	279	530	650	1150	3210	3640	932	710	410
16	650	65	425	268	530	665	1070	3800	3570	806	722	455
17	640	65	425	258	530	580	1740	4480	3620	932	872	450
18	665	65	455	258	530	540	2660	4390	3400	999	818	425
19	665	65	485	258	530	520	2790	4110	2980	988	800	440
20	625	67	505	231	530	560	2400	3840	2500	946	782	450
21	610	71	505	211	530	585	1810	3740	2330	918	788	450
22	585	73	585	211	530	585	1470	3510	2180	925	812	450
23	560	75	630	214	530	540	1380	3090	2190	1090	1060	450
24	580	77	625	211	529	510	1510	2740	2250	1060	1140	425
25	590	142	625	211	525	510	1590	2300	2050	1000	1040	410
26	590	397	625	255	525	525	1590	2130	1970	925	967	374
27	565	530	625	307	555	550	1550	1940	1900	933	842	356
28	535	535	625	324	565	550	1550	1790	1760	995	758	356
29	540	535	535	324	---	550	1760	1660	1780	1090	746	352
30	565	535	480	363	---	495	1970	1570	2160	1140	680	352
31	565	---	485	406	---	490	---	1560	---	1100	595	---
TOTAL	16147	12261	17157	9695	14219	17235	39674	78180	87780	35609	26470	13700
MEAN	521	409	553	313	508	556	1322	2522	2926	1149	854	457
MAX	710	716	650	480	565	665	2790	4480	5380	2340	1140	555
MIN	332	65	402	211	406	470	505	1560	1460	806	595	352
AC-FT	32030	24320	34030	19230	28200	34190	78690	155100	174100	70630	52500	27170

CAL YR 1986 TOTAL 355729 MEAN 975 MAX 4770 MIN 65 AC-FT 705600
WTR YR 1987 TOTAL 368127 MEAN 1009 MAX 5380 MIN 65 AC-FT 730200

07099400 ARKANSAS RIVER ABOVE PUEBLO, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1985 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1985 to current year.
WATER TEMPERATURE: December 1985 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Record is complete for year and is considered good. Daily maximum and minimum specific conductance data available in the district office.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 726 microsiemens May 5, 1986; minimum, 223 microsiemens July 13, 198[illegible].
WATER TEMPERATURE: Maximum, 20.0°C Sept. 8, 1986, Aug. 20-21, 25, 29, Sept. 1, 3, 5-20, 1987; minimum, [illegible] Jan. 25, 27-30, 1987.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 616 microsiemens Apr. 10; minimum, 309 microsiemens July 3.
WATER TEMPERATURE: Maximum, 20.0°C Aug. 20-21, 25, 29, Sept. 1, 3, 5-20; minimum, 2.5°C Jan. 25, 27-30.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	372	408	404	457	467	488	513	526	441	317	355	426
2	383	398	403	456	466	492	512	527	439	318	358	429
3	396	396	406	452	466	493	512	526	432	319	360	430
4	389	398	407	446	471	495	514	526	419	314	359	430
5	383	401	408	445	471	496	516	526	406	316	364	431
6	381	404	409	439	473	503	522	526	406	313	370	431
7	376	407	416	452	472	514	519	527	404	316	369	431
8	382	401	412	453	493	519	517	526	395	316	368	434
9	392	398	417	445	500	517	518	526	390	314	367	434
10	392	405	413	441	481	515	531	525	386	314	373	431
11	384	404	437	441	500	507	520	524	381	315	[illegible]	[illegible]
12	376	403	438	442	517	503	520	524	383	317	382	436
13	373	405	436	446	512	503	519	524	387	315	391	426
14	373	436	436	458	517	499	520	523	383	318	387	423
15	373	466	437	471	499	500	526	518	382	320	391	435
16	383	450	436	466	501	503	525	518	378	323	393	431
17	391	446	437	459	498	506	521	514	365	320	395	436
18	396	441	438	452	501	505	518	508	365	321	399	437
19	398	440	435	457	513	505	518	506	366	324	401	438
20	401	437	435	462	501	505	521	502	355	324	402	429
21	400	440	440	466	492	506	527	496	352	326	406	430
22	403	444	440	468	487	506	529	500	348	330	403	433
23	403	447	440	466	499	509	529	493	345	329	402	433
24	403	449	441	469	512	510	529	490	340	332	404	438
25	403	437	447	465	515	509	528	485	334	334	404	443
26	393	406	447	460	514	509	528	485	335	339	407	446
27	405	401	445	458	498	509	528	478	332	342	416	458
28	411	403	447	462	492	510	528	468	335	342	418	458
29	408	408	448	461	---	510	527	463	331	342	418	452
30	408	408	444	462	---	512	525	462	325	347	421	449
31	414	---	454	463	---	512	---	446	---	352	427	---
MEAN	392	420	431	456	494	505	522	506	375	325	390	435
MAX	414	466	454	471	517	519	531	527	441	352	427	458
MIN	372	396	403	439	466	488	512	446	325	313	355	423

WTR YR 1987 MEAN 437 MAX 531 MIN 313

ARKANSAS RIVER BASIN

07099400 ARKANSAS RIVER ABOVE PUEBLO, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.5	17.5	13.5	13.0	8.5	8.0	5.0	4.5	3.5	3.0	4.0	3.0
2	17.5	17.0	13.0	13.0	8.5	8.0	4.5	4.5	3.5	3.0	4.0	3.5
3	17.0	16.5	13.0	13.0	8.5	8.0	4.5	4.5	3.5	3.0	4.0	3.5
4	17.0	16.5	13.0	12.5	8.0	7.5	5.0	4.5	3.0	3.0	4.5	3.5
5	17.0	16.5	13.0	12.5	8.0	7.5	5.0	4.5	3.5	3.0	4.5	4.0
6	17.0	16.5	12.5	12.0	8.0	7.5	5.0	4.5	3.5	3.0	4.5	4.0
7	17.0	16.5	12.0	12.0	7.5	7.5	4.5	4.5	3.5	3.0	4.5	4.0
8	17.0	16.5	12.0	12.0	7.5	7.0	4.5	4.5	3.5	3.0	4.0	4.0
9	16.5	16.5	12.0	11.5	7.5	7.0	4.5	4.0	3.5	3.0	4.0	4.0
10	16.5	16.0	11.5	11.0	7.5	7.0	4.5	4.0	4.0	3.0	4.5	4.0
11	16.0	16.0	11.5	11.0	7.0	6.5	4.5	4.0	3.5	3.0	4.5	4.0
12	16.0	15.5	11.0	10.5	7.0	6.5	4.5	4.0	3.5	3.0	5.0	4.0
13	16.0	15.5	11.0	10.5	7.0	6.5	4.5	4.0	3.5	3.0	5.0	4.0
14	15.5	15.0	11.0	10.0	7.0	6.5	4.5	4.0	3.5	3.0	5.0	5.0
15	15.5	15.0	11.0	10.0	6.5	6.0	4.0	3.5	4.0	3.5	5.0	4.5
16	15.0	14.0	11.0	9.5	6.5	6.0	4.0	3.5	3.5	3.5	5.0	4.5
17	14.5	14.0	11.0	9.5	6.5	6.0	4.0	3.0	3.5	3.5	5.0	4.5
18	14.0	13.5	11.0	9.5	6.0	6.0	3.5	3.0	3.5	3.5	5.5	4.5
19	14.0	13.5	11.0	9.5	6.5	6.0	3.5	3.0	3.5	3.5	5.5	5.0
20	14.0	13.5	10.5	9.0	6.0	6.0	3.5	3.0	4.0	3.5	5.5	5.0
21	14.0	13.5	10.0	9.0	6.0	5.5	4.0	3.0	4.0	3.5	5.5	5.0
22	14.0	13.5	9.0	8.5	6.0	5.5	4.0	3.0	4.0	3.5	5.5	5.0
23	14.0	13.5	9.5	8.0	6.0	5.5	3.5	3.0	4.0	3.5	5.5	5.0
24	14.0	13.5	9.5	8.0	5.5	5.0	4.0	3.0	3.5	3.5	5.5	5.0
25	14.0	13.5	9.0	8.0	5.5	5.0	3.5	2.5	4.0	3.5	5.5	5.0
26	14.0	13.5	9.0	8.5	5.5	5.0	3.0	3.0	4.0	3.5	5.5	5.0
27	14.0	13.5	9.0	8.5	5.5	5.0	3.0	2.5	4.0	3.5	5.0	4.5
28	14.0	13.5	9.0	8.5	5.5	5.0	3.5	2.5	4.0	3.5	5.5	4.5
29	14.0	13.5	9.0	8.5	5.5	5.0	3.0	2.5	---	---	5.5	5.0
30	14.0	13.5	8.5	8.0	5.0	4.5	3.5	2.5	---	---	5.5	4.5
31	13.5	13.0	---	---	5.0	4.5	3.5	3.0	---	---	5.5	5.0
MONTH	17.5	13.0	13.5	8.0	8.5	4.5	5.0	2.5	4.0	3.0	5.5	3.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.5	5.0	8.0	7.5	12.5	11.5	16.0	16.0	18.5	18.0	20.0	19.0
2	5.5	4.5	8.0	7.5	12.5	11.5	16.5	16.0	18.5	17.5	19.5	19.0
3	5.5	5.0	9.0	7.5	12.5	12.0	16.5	16.0	18.5	18.0	20.0	19.0
4	5.5	5.0	8.5	7.5	13.0	12.0	16.5	16.0	19.0	18.0	19.5	19.0
5	5.5	5.0	8.5	8.0	13.0	12.5	16.5	16.0	18.5	18.0	20.0	19.0
6	6.0	5.0	8.5	8.0	13.0	12.5	16.5	16.0	19.0	18.0	20.0	19.0
7	6.0	5.5	8.5	8.0	13.0	12.5	17.0	16.0	19.0	18.0	20.0	19.0
8	6.0	5.5	8.5	8.0	13.0	13.0	17.0	16.0	19.0	18.0	20.0	19.5
9	6.0	5.5	9.0	8.0	13.5	13.0	17.0	16.0	19.0	18.0	20.0	19.0
10	6.5	5.5	8.5	8.0	13.5	13.0	17.0	16.0	19.0	18.0	20.0	19.0
11	7.0	6.0	9.0	8.5	13.5	13.5	17.0	16.0	19.0	18.5	20.0	19.0
12	6.5	6.0	9.0	8.5	14.0	13.5	16.5	16.5	19.0	18.5	20.0	19.0
13	6.5	6.0	9.0	8.5	14.5	14.0	17.0	16.5	19.0	18.5	20.0	19.5
14	6.5	6.0	9.0	8.5	14.5	13.5	17.0	16.5	19.5	18.5	20.0	19.0
15	7.0	6.0	9.0	9.0	15.0	14.0	17.5	16.5	19.5	18.5	20.0	19.5
16	7.0	6.5	9.5	8.5	15.0	14.0	18.0	16.5	19.5	18.5	20.0	19.5
17	7.0	6.5	9.5	9.0	15.0	14.5	17.5	16.5	19.5	18.5	20.0	19.5
18	7.0	6.5	10.5	9.5	15.0	15.0	17.5	16.5	19.5	18.5	20.0	19.5
19	7.0	6.5	10.5	9.0	15.5	14.5	18.0	17.0	19.5	18.5	20.0	19.5
20	7.5	6.5	10.0	9.5	15.5	15.0	17.5	17.0	20.0	18.5	20.0	19.0
21	8.0	7.0	10.5	10.0	15.5	15.0	18.0	17.0	20.0	19.0	19.5	19.0
22	8.5	7.0	10.5	10.0	15.5	15.0	18.0	17.0	19.5	19.0	19.5	19.0
23	8.0	7.5	11.5	10.5	16.0	15.0	18.0	17.0	19.5	19.0	19.5	19.0
24	8.0	7.5	11.0	10.5	16.0	15.5	18.0	17.0	19.5	19.0	19.5	19.0
25	8.0	7.5	11.5	11.0	16.0	15.5	18.0	17.5	20.0	19.0	19.5	19.0
26	8.0	7.5	11.5	10.5	16.0	15.5	18.5	17.5	19.5	19.0	19.5	19.0
27	8.0	7.5	11.5	10.5	16.0	15.5	18.5	17.5	19.5	19.0	19.5	18.5
28	8.0	7.5	12.0	11.0	16.0	15.5	18.5	17.5	19.5	19.0	19.5	18.5
29	8.0	7.5	12.5	11.0	16.0	15.5	18.5	17.5	20.0	19.5	19.5	18.5
30	8.0	7.5	12.0	11.5	16.0	15.5	18.5	17.5	19.5	19.0	19.0	18.5
31	---	---	12.5	11.5	---	---	18.5	17.5	19.5	19.0	---	---
MONTH	8.5	4.5	12.5	7.5	16.0	11.5	18.5	16.0	20.0	17.5	20.0	18.5

YEAR MAXIMUM 20.0 MINIMUM 2.5

07103700 FOUNTAIN CREEK NEAR COLORADO SPRINGS, CO

LOCATION.--Lat 38°51'17", long 104°52'39", in SE¼SW¼ sec.3, T.14 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on left bank 200 ft upstream from diversion to city of Colorado Springs, 0.5 mi east of bridge on U.S. Highway 24 near west city limits of Colorado Springs, and 1.0 mi downstream from Sutherland Creek.

DRAINAGE AREA.--103 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1958 to current year.

GAGE.--Water-stage recorder and Parshall flume with overflow weirs. Elevation of gage is 6,110 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 10-22. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation and municipal use, and at times, transbasin diversion from Beaver Creek drainage and transmountain diversions from Colorado River basin.

AVERAGE DISCHARGE.--29 years, 14.7ft³/s; 10,650 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,630 ft³/s, Aug. 4, 1964, gage height, 5.27 ft, from rating curve extended above 190 ft³/s, on basis of slope-area measurements at gage heights, 3.87, 4.52, and 5.27 ft; minimum daily, 2.0 ft³/s, Jan. 24, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 202 ft³/s at 1545 Aug 27, gage height, 3.34 ft; minimum daily, 5.4 ft³/s, Jan. 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	13	8.5	5.6	8.4	11	11	28	18	55	10	11
2	8.1	11	9.2	8.8	8.6	12	11	31	13	45	21	11
3	9.4	12	9.2	8.6	8.4	12	10	32	14	50	16	11
4	8.3	11	8.3	8.6	8.4	13	9.8	28	15	50	14	12
5	8.0	11	7.6	8.1	16	14	10	26	17	47	12	11
6	8.8	11	7.8	8.1	10	19	10	33	16	45	11	12
7	7.9	11	8.3	8.2	8.3	20	11	32	15	44	11	12
8	10	11	8.1	8.4	8.3	14	11	30	35	44	9.0	11
9	7.8	10	7.8	7.8	8.4	13	9.5	27	52	58	16	11
10	7.8	11	7.7	7.7	8.5	13	9.0	27	53	26	16	10
11	8.4	10	8.2	8.8	8.6	12	10	29	42	27	8.6	13
12	8.8	11	9.1	8.9	8.5	12	13	50	43	39	14	11
13	12	9.4	9.1	8.4	8.6	13	10	44	54	38	27	9.4
14	13	11	9.7	8.2	9.0	13	9.5	32	55	33	19	9.3
15	13	9.9	8.9	6.7	8.3	13	10	29	48	26	12	16
16	12	9.8	13	5.4	8.7	15	11	32	44	22	10	11
17	11	9.9	15	6.4	8.5	13	13	35	41	20	10	11
18	9.5	10	14	8.4	27	13	16	32	41	19	9.3	11
19	9.1	11	10	8.9	13	13	28	33	54	17	9.8	9.9
20	13	10	7.5	8.2	11	13	30	32	58	15	11	9.6
21	10	10	7.9	8.7	10	12	26	38	64	14	11	10
22	9.7	8.7	7.2	8.6	10	12	23	33	56	15	29	9.4
23	9.9	9.1	6.9	9.0	12	12	21	28	52	14	21	8.9
24	9.5	12	7.3	8.5	12	11	24	37	55	13	17	8.8
25	8.4	11	6.4	8.1	11	11	29	40	57	13	12	8.1
26	9.3	13	5.9	8.5	21	12	27	26	59	11	16	7.2
27	8.7	7.1	6.7	8.5	24	12	30	24	60	11	23	7.5
28	8.7	7.6	8.2	8.9	11	11	31	24	53	11	15	8.2
29	8.5	8.1	12	8.4	---	11	27	24	103	11	13	8.0
30	8.6	8.4	14	8.0	---	12	26	22	80	9.8	12	7.6
31	10	---	7.8	7.9	---	12	---	21	---	8.6	12	---
TOTAL	295.8	309.0	277.3	251.3	315.5	399	516.8	959	1367	851.4	447.7	306.9
MEAN	9.54	10.3	8.95	8.11	11.3	12.9	17.2	30.9	45.6	27.5	14.4	10.2
MAX	13	13	15	9.0	27	20	31	50	103	58	29	16
MIN	7.8	7.1	5.9	5.4	8.3	11	9.0	21	13	8.6	8.6	7.2
AC-FT	587	613	550	498	626	791	1030	1900	2710	1690	888	609

CAL YR 1986 TOTAL 4115.8 MEAN 11.3 MAX 26 MIN 5.9 AC-FT 8160
WTR YR 1987 TOTAL 6296.7 MEAN 17.3 MAX 103 MIN 5.4 AC-FT 12490

07103700 FOUNTAIN CREEK NEAR COLORADO SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1974 to current year.

REMARKS.--Periodic sediment data for the 1986 water year are published in this report. Discharge and selected water-quality data from a synoptic sampling are published elsewhere in this report.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC					
18...	1135	12	14	0.45	--
FEB					
19...	1355	14	12	0.46	--
MAR					
19...	1335	13	6	0.21	--
APR					
14...	1430	8.1	5	0.11	--
16...	1340	9.8	4	0.11	--
MAY					
28...	1350	9.0	11	0.27	97
JUL					
23...	1335	11	286	8.5	48
AUG					
20...	1410	8.3	39	0.87	--
25...	1630	9.1	123	3.0	90
SEP					
18...	1345	7.5	248	5.0	99

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT									
15...	1320	12	275	7.9	7.5	9.8	E0.9	K29	210
NOV									
13...	1450	14	332	8.2	0.0	12.1	2.4	100	220
DEC									
17...	1110	14	234	8.3	1.5	11.2	2.7	25	34
JAN									
21...	1325	11	344	8.3	0.0	9.2	0.8	K14	50
FEB									
18...	1100	38	176	--	2.5	10.8	5.3	>1200	1600
MAR									
18...	0900	12	362	8.3	1.5	E10.8	0.5	K840	280
APR									
22...	1215	20	238	8.3	8.5	9.8	0.8	K4	140
MAY									
27...	1130	24	196	8.3	7.5	9.5	0.4	140	250
JUN									
24...	1445	57	120	8.0	15.0	8.4	0.5	220	E380
JUL									
29...	1015	13	254	8.2	15.0	7.9	0.7	460	460
AUG									
19...	1100	10	--	8.4	13.5	8.2	0.1	K260	300
SEP									
16...	1000	12	303	8.4	10.0	8.9	1.0	230	K470

K BASED ON NON-IDEAL COLONY COUNT.
E ESTIMATED.

07103700 FOUNTAIN CREEK NEAR COLORADO SPRINGS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)
OCT 15...	95	15	11	21	<0.01	0.70	0.70	<1
NOV 13...	114	19	16	122	0.02	0.60	1.10	<1
DEC 17...	81	15	12	26	0.02	0.40	0.70	<1
JAN 21...	127	21	22	22	0.06	0.20	1.20	<1
FEB 18...	61	5.8	12	373	0.07	3.4	0.50	<1
MAR 18...	125	21	23	48	0.12	1.2	1.30	<1
APR 22...	81	18	10	86	0.02	0.20	0.70	<1
MAY 27...	71	12	8.4	144	0.02	0.40	0.50	<1
JUN 24...	37	7.9	3.8	20	0.02	0.40	0.30	<1
JUL 29...	96	15	11	15	<0.01	0.50	0.80	<1
AUG 19...	112	16	11	15	<0.01	0.40	0.90	<1
SEP 16...	105	17	14	66	<0.05	0.40	0.80	1

DATE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
OCT 15...	10	<1	830	70	<5	100	50	--
NOV 13...	20	6	3000	20	5	220	40	30
DEC 17...	<10	4	780	60	<5	70	40	20
JAN 21...	<10	5	1000	30	<5	90	50	10
FEB 18...	<10	28	23000	30	53	2900	40	200
MAR 18...	<10	5	1700	20	<5	150	90	20
APR 22...	<10	6	2500	180	<5	160	40	20
MAY 27...	<10	6	2800	40	<5	140	40	30
JUN 24...	<10	4	2300	30	5	160	10	20
JUL 29...	<10	3	910	90	<5	90	20	<10
AUG 19...	<10	4	840	30	<5	70	30	<10
SEP 16...	<10	5	2500	100	5	120	30	30

07103747 MONUMENT CREEK AT PALMER LAKE, CO

LOCATION.--Lat 39°06'07", long 104°53'27", in SE¼SE¼ sec.9, T.11 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on left bank 0.9 mi upstream from Monument Lake, 1.5 mi downstream from North Monument Creek, and 1.9 mi southeast of town of Palmer Lake.

DRAINAGE AREA.--25.9 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.-- February 1977 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,950 ft above National Geodetic Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 30, Dec. 1, 9-31, Jan. 1 to Feb. 6, Feb. 14-15, 19-23, 26-28, Mar. 1-5, 23, 27-30. Records good except those for periods of estimated daily discharge, which are poor. Storage and diversions upstream from station for municipal supply of Palmer Lake.

AVERAGE DISCHARGE.--10 years (water years 1978-87), 7.75 ft^3/s; 5,610 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 216 ft^3/s, Aug. 2, 1981, from rating curve extended above 130 ft^3/s, gage height, 2.07 ft, from floodmark; minimum daily, 0.10 ft^3/s, many days in 1978-79.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 195 ft^3/s at 2245 May 6, gage height, 2.04 ft; minimum daily, 0.73 ft^3/s, Oct. 2 and Aug. 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.86	1.8	1.0	1.1	1.1	1.2	4.8	35	15	9.9	1.3	1.9
2	.73	1.8	1.1	1.1	1.2	1.5	5.4	35	14	8.5	2.3	1.5
3	.87	1.8	1.2	1.2	1.1	1.7	6.2	40	13	7.2	2.9	1.3
4	.88	2.0	1.2	1.3	1.1	1.9	7.4	40	13	6.5	2.3	1.2
5	.89	2.1	1.2	1.2	1.1	2.0	8.1	47	12	6.0	1.9	1.3
6	.88	1.6	1.2	1.1	1.2	2.3	8.0	136	11	5.4	1.5	1.4
7	.88	1.6	1.3	1.0	1.4	3.1	8.4	146	10	5.1	1.4	1.4
8	.90	1.5	1.4	1.0	1.4	3.9	9.3	149	11	5.0	1.8	1.4
9	.97	1.3	1.0	1.0	1.4	4.2	9.8	124	24	4.8	2.3	1.4
10	1.0	1.2	.90	1.0	1.4	4.2	11	81	17	4.2	1.9	1.3
11	1.2	1.1	1.0	1.0	1.4	4.0	13	82	14	4.3	1.6	1.1
12	1.4	1.1	1.1	1.1	1.4	4.4	15	54	13	5.2	1.7	1.2
13	1.4	1.0	1.1	1.2	1.4	4.6	13	41	12	5.5	2.1	1.3
14	1.4	1.1	1.1	1.0	1.3	5.3	14	38	11	4.6	1.8	1.1
15	1.4	1.0	1.2	.90	1.3	6.0	17	38	12	4.0	1.4	1.4
16	1.4	1.1	1.2	.80	1.2	5.9	25	36	14	3.7	1.1	1.5
17	1.4	1.1	1.1	.80	1.3	5.5	32	35	12	3.4	.99	1.6
18	1.4	1.2	1.1	.90	1.3	5.4	37	32	11	3.4	.88	2.3
19	1.4	1.3	1.1	.90	1.2	5.8	37	28	10	3.0	.84	2.3
20	1.7	1.4	1.1	.90	1.1	5.9	37	27	9.5	2.4	.76	1.6
21	1.8	1.4	1.1	.90	1.1	5.7	31	29	8.7	2.0	.73	1.5
22	1.8	1.4	1.2	1.0	1.1	5.7	32	27	8.0	1.8	2.7	1.3
23	1.8	1.4	1.3	1.0	1.1	5.4	35	23	7.2	1.6	4.5	1.2
24	1.9	1.3	1.1	1.0	1.2	5.0	36	26	6.9	1.5	3.4	1.1
25	1.7	1.3	1.0	1.1	1.2	4.8	35	28	6.8	1.6	2.9	1.1
26	1.6	1.3	1.0	1.1	1.1	4.6	35	23	7.0	1.3	3.4	1.2
27	1.6	1.3	1.1	1.2	1.1	4.4	35	22	6.2	1.4	5.8	1.2
28	1.5	1.2	1.1	1.2	1.1	4.2	36	20	5.7	1.4	3.7	1.3
29	1.5	1.1	1.2	1.1	---	4.0	37	21	10	2.1	3.2	1.3
30	1.4	1.0	1.2	1.0	---	4.1	36	19	13	1.8	2.4	1.1
31	1.5	---	1.1	1.1	---	4.2	---	17	---	1.4	1.7	---
TOTAL	41.06	40.8	35.00	32.20	34.3	130.9	666.4	1499	338.0	120.0	67.20	41.8
MEAN	1.32	1.36	1.13	1.04	1.22	4.22	22.2	48.4	11.3	3.87	2.17	1.39
MAX	1.9	2.1	1.4	1.3	1.4	6.0	37	149	24	9.9	5.8	2.3
MIN	.73	1.0	.90	.80	1.1	1.2	4.8	17	5.7	1.3	.73	1.1
AC-FT	81	81	69	64	68	260	1320	2970	670	238	133	83

CAL YR 1986 TOTAL 1235.16 MEAN 3.38 MAX 24 MIN .63 AC-FT 2450
WTR YR 1987 TOTAL 3046.66 MEAN 8.35 MAX 149 MIN .73 AC-FT 6040

07103747 MONUMENT CREEK AT PALMER LAKE, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1977 to September 1980; January 1984 to current year.

REMARKS.--Periodic sediment data for water year 1986 are published in this report. Discharge and selected water-quality data for a synoptic sampling are published elsewhere in this report.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT				
16...	1010	3.2	1	0.01
NOV				
13...	1035	2.8	48	0.36
DEC				
17...	1040	1.9	28	0.14
JAN				
28...	0850	1.7	23	0.11
FEB				
19...	0805	2.5	401	2.7
MAR				
19...	0810	4.1	61	0.68
APR				
16...	0750	12	21	0.65
MAY				
28...	0750	3.6	5	0.05
JUL				
23...	0750	1.9	30	0.15
AUG				
20...	0750	0.64	10	0.02
SEP				
18...	0755	0.64	7	0.01

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT									
15...	1320	12	275	7.9	7.5	9.8	E0.9	K29	210
NOV									
13...	1450	14	332	8.2	0.0	12.1	2.4	100	220
DEC									
17...	1110	14	234	8.3	1.5	11.2	2.7	25	34
JAN									
21...	1325	11	344	8.3	0.0	9.2	0.8	K14	50
FEB									
18...	1100	38	176	--	2.5	10.8	5.3	>1200	1600
MAR									
18...	0900	12	362	8.3	1.5	E10.8	0.5	K840	280
APR									
22...	1215	20	238	8.3	8.5	9.8	0.8	K4	140
MAY									
27...	1130	24	196	8.3	7.5	9.5	0.4	140	250
JUN									
24...	1445	57	120	8.0	15.0	8.4	0.5	220	E380
JUL									
29...	1015	13	254	8.2	15.0	7.9	0.7	460	460
AUG									
19...	1100	10	--	8.4	13.5	8.2	0.1	K260	300
SEP									
16...	1000	12	303	8.4	10.0	8.9	1.0	230	K470

E ESTIMATED.
K BASED ON NON-IDEAL COLONY COUNT

07103747 MONUMENT CREEK AT PALMER LAKE, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)
OCT 15...	95	15	11	21	<0.01	0.70	0.70	<1
NOV 13...	114	19	16	122	0.02	0.60	1.10	<1
DEC 17...	81	15	12	26	0.02	0.40	0.70	<1
JAN 21...	127	21	22	22	0.06	0.20	1.20	<1
FEB 18...	61	5.8	12	373	0.07	3.4	0.50	<1
MAR 18...	125	21	23	48	0.12	1.2	1.30	<1
APR 22...	81	18	10	86	0.02	0.20	0.70	<1
MAY 27...	71	12	8.4	144	0.02	0.40	0.50	<1
JUN 24...	37	7.9	3.8	20	0.02	0.40	0.30	<1
JUL 29...	96	15	11	15	<0.01	0.50	0.80	<1
AUG 19...	112	16	11	15	<0.01	0.40	0.90	<1
SEP 16...	105	17	14	66	<0.05	0.40	0.80	1

DATE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
OCT 15...	10	<1	830	70	<5	100	50	--
NOV 13...	20	6	3000	20	5	220	40	30
DEC 17...	<10	4	780	60	<5	70	40	20
JAN 21...	<10	5	1000	30	<5	90	50	10
FEB 18...	<10	28	23000	30	53	2900	40	200
MAR 18...	<10	5	1700	20	<5	150	90	20
APR 22...	<10	6	2500	180	<5	160	40	20
MAY 27...	<10	6	2800	40	<5	140	40	30
JUN 24...	<10	4	2300	30	5	160	10	20
JUL 29...	<10	3	910	90	<5	90	20	<10
AUG 19...	<10	4	840	30	<5	70	30	<10
SEP 16...	<10	5	2500	100	5	120	30	30

07103780 MONUMENT CREEK ABOVE NORTH GATE BOULEVARD AT U.S. AIR FORCE ACADEMY, CO

LOCATION.--Lat 39°01'52", long 104°50'52", in SW¼SW¼ sec.1, T.12 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on right bank, at U.S. Air Force Academy, 50 ft upstream from Denver and Rio Grande Western Railroad bridge, 0.8 mi upstream from North Gate Boulevard, and 1.5 mi downstream from Beaver Creek.

DRAINAGE AREA.--81.7 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,640 ft above National Geodetic Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 30 to Dec. 10, Dec. 25 to Feb. 3, Feb. 17-20, 26-28 and May 8-10. Records fair except for estimated daily discharges, which are poor. Storage and diversions upstream from station for municipal supply of Monument and Palmer Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 372 ft^3/s, Apr. 30, 1985, gage height, 6.05 ft; minimum daily, 1.1 ft^3/s, Aug. 21, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 261 ft^3/s at 1230 May 7, gage height, 5.24 ft; minimum daily, 1.6 ft^3/s, July 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	4.6	2.0	4.0	5.3	8.4	11	48	40	38	2.0	4.9
2	2.4	6.7	3.4	5.0	6.0	13	16	45	37	36	3.6	4.8
3	2.3	7.4	3.2	5.5	4.8	12	22	52	26	33	4.5	5.7
4	2.5	6.7	3.5	6.5	3.6	30	17	55	28	25	5.1	2.6
5	2.4	4.1	4.0	5.5	4.6	12	11	59	26	17	5.9	7.1
6	2.4	3.5	3.0	4.5	6.8	7.7	11	172	27	15	5.2	16
7	2.5	2.6	2.7	3.5	5.9	8.6	11	232	34	13	5.2	14
8	2.5	3.8	2.4	2.8	3.6	8.6	11	215	37	20	5.2	9.0
9	2.5	7.2	2.3	3.2	4.1	7.4	11	183	55	20	8.0	7.4
10	2.6	17	2.7	3.8	3.5	9.1	16	151	56	16	13	6.9
11	3.0	11	3.4	4.1	3.2	6.8	20	133	49	11	13	5.0
12	7.0	7.3	3.7	4.4	3.0	7.7	20	135	42	10	4.4	5.2
13	6.2	3.8	4.0	4.5	3.1	13	20	113	35	7.1	4.4	5.9
14	3.0	3.2	4.3	4.0	3.2	18	21	104	32	4.7	6.9	6.4
15	3.0	4.0	3.9	3.6	4.1	17	23	101	34	4.9	4.1	5.5
16	3.0	4.0	3.9	3.2	4.6	17	22	85	32	17	2.6	6.4
17	3.0	3.9	3.6	2.8	5.5	16	25	81	30	12	2.3	4.2
18	3.1	3.6	4.7	2.6	5.0	16	34	76	29	3.7	2.3	3.8
19	3.0	3.6	6.2	2.5	4.5	14	50	69	29	2.0	2.3	3.9
20	3.9	3.3	6.4	2.4	4.3	6.5	47	76	29	1.8	5.5	3.4
21	3.9	3.2	4.5	2.3	4.5	9.8	38	82	28	9.0	10	3.4
22	3.7	3.3	5.3	2.5	5.2	14	37	73	22	11	14	3.2
23	5.5	3.1	6.9	2.9	5.5	15	45	72	15	7.1	8.0	3.1
24	15	3.2	6.1	3.2	5.9	11	48	88	14	2.9	7.2	6.4
25	10	3.1	5.0	3.9	5.7	6.6	49	76	20	2.5	8.2	11
26	3.3	3.1	5.5	4.1	6.0	4.5	46	67	26	2.1	11	9.7
27	3.3	3.7	6.0	4.4	5.6	4.4	33	56	24	1.9	30	6.7
28	3.3	2.8	7.0	4.7	6.5	7.1	42	46	18	1.6	27	2.1
29	3.2	2.8	6.3	4.5	---	18	43	56	29	2.4	23	2.1
30	3.5	2.2	5.5	4.2	---	24	47	63	36	1.8	6.8	2.4
31	3.4	---	4.5	4.5	---	12	---	57	---	1.8	5.1	---
TOTAL	120.9	141.8	135.9	119.6	133.6	375.2	847	2921	939	351.3	255.8	178.2
MEAN	3.90	4.73	4.38	3.86	4.77	12.1	28.2	94.2	31.3	11.3	8.25	5.94
MAX	15	17	7.0	6.5	6.8	30	50	232	56	38	30	16
MIN	2.3	2.2	2.0	2.3	3.0	4.4	11	45	14	1.6	2.0	2.1
AC-FT	240	281	270	237	265	744	1680	5790	1860	697	507	353

CAL YR 1986 TOTAL 3017.4 MEAN 8.27 MAX 45 MIN 1.1 AC-FT 5980
WTR YR 1987 TOTAL 6519.3 MEAN 17.9 MAX 232 MIN 1.6 AC-FT 12930

07103780 MONUMENT CREEK ABOVE NORTH GATE BOULEVARD AT U.S. AIR FORCE ACADEMY, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1984 to current year.

REMARKS.--Periodic sediment data for the 1986 water year are published in this report. Discharge and selected water-quality data for a synoptic sampling are published elsewhere in this report.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
16...	1140	5.2	26	0.37	74
29...	1355	5.2	14	0.20	66
NOV					
13...	1155	12	76	2.5	61
DEC					
17...	1220	7.7	31	0.64	19
JAN 1986					
28...	1015	11	139	4.2	37
FEB					
19...	0930	9.0	31	0.75	--
MAR					
19...	0930	21	43	2.5	--
APR					
14...	1125	33	81	7.2	--
16...	0920	21	29	1.7	--
MAY					
28...	0930	6.7	43	0.78	--
23...	0925	4.4	40	0.48	--
AUG					
20...	0925	1.4	23	0.09	--
25...	1030	2.3	95	0.59	--
SEP					
18...	0925	1.7	4	0.02	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT									
15...	0930	3.0	275	8.2	5.0	10.3	E4.0	K23	320
NOV									
13...	1000	E3.0	322	8.1	0.0	11.8	>6.0	E3	E23
DEC									
18...	1110	E9.0	387	7.9	0.0	10.8	E7.0	K9	22
JAN									
21...	0940	E2.3	401	7.8	0.0	8.4	>7.0	K12	120
FEB									
19...	1215	4.5	236	7.8	0.5	11.3	6.2	E4	K2
MAR									
19...	1045	17	248	8.1	4.5	10.2	5.5	K24	60
APR									
23...	1200	47	131	8.1	12.0	8.7	3.7	K12	290
MAY									
28...	1215	45	143	8.1	15.0	7.8	2.7	K20	40
JUN									
24...	1030	15	205	7.8	19.0	7.1	3.2	K34	64
JUL									
30...	1130	1.9	256	8.5	24.5	8.6	3.9	100	64
AUG									
20...	1130	2.3	312	8.8	19.5	8.6	4.1	52	76
SEP									
17...	1145	4.4	260	8.8	14.0	8.9	6.8	63	40

E ESTIMATED.
K BASED ON NON-IDEAL COLONY COUNT.

07103780 MONUMENT CREEK ABOVE NORTH GATE BOULEVARD AT U.S. AIR FORCE ACADEMY, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
OCT								
15...	78	24	13	14	0.29	3.7	1.40	<1
NOV								
13...	75	30	16	9	2.30	3.8	1.20	<1
DEC								
18...	74	53	23	15	4.30	5.6	1.10	<1
JAN								
21...	109	44	28	4	7.10	8.1	0.90	<1
FEB								
19...	72	16	14	13	2.00	3.3	0.40	<1
MAR								
19...	64	26	15	26	0.97	1.8	0.30	<1
APR								
23...	36	14	5.1	146	0.32	1.0	0.20	<1
MAY								
28...	42	12	5.2	65	0.35	1.4	0.20	<1
JUN								
24...	55	18	8.0	7	0.40	0.50	1.00	<1
JUL								
30...	71	25	13	11	0.22	1.2	1.40	<1
AUG								
20...	121	31	16	2	0.05	1.0	1.40	1
SEP								
17...	79	20	15	8	0.01	1.2	0.90	<1

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT								
15...	<10	3	630	140	8	100	70	80
NOV								
13...	<10	7	590	440	<5	90	90	10
DEC								
18...	<10	10	670	80	<5	130	120	10
JAN								
21...	<10	9	530	210	<5	180	170	20
FEB								
19...	<10	8	640	170	11	130	90	<10
MAR								
19...	<10	3	920	130	<5	2200	60	10
APR								
23...	<10	10	3000	20	14	180	30	20
MAY								
28...	10	4	2000	10	<5	100	40	20
JUN								
24...	<10	3	740	30	<5	110	80	10
JUL								
30...	<10	2	540	180	6	80	40	<10
AUG								
20...	<10	3	560	220	<5	90	70	<10
SEP								
17...	<10	3	630	30	8	100	50	<10

07103800 WEST MONUMENT CREEK AT U.S. AIR FORCE ACADEMY, CO

LOCATION.--Lat 38°58'14", long 104°54'08", in SW¼SW¼ sec.28, T.12 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on left bank 500 ft upstream from diversion to city of Colorado Springs water-treatment plant, 2.7 mi south of U.S. Air Force Academy chapel, and 4.4 mi upstream from mouth.

DRAINAGE AREA.--14.9 mi².

PERIOD OF RECORD.--May 1970 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 7,180 ft above National Geodetic Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 11-14, Dec. 7-14, 18-31, Jan. 1-12, 15-25, Feb. 21-28, and Mar. 29-30. Records fair except those for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain diversions from Colorado River basin, storage reservoirs, and operation of water-supply system. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--17 years, 2.06 ft³/s; 1,490 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 80 ft³/s, May 8, 1980, gage height, 2.73 ft, from rating curve extended above 34 ft³/s; maximum gage height, 3.88 ft, Dec. 22, 1983 (backwater from ice); no flow many days in 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9.9 ft³/s at 1815 May 7, gage height, 1.71 ft; minimum daily, 0.06 ft³/s, Jan. 15-21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.21	.19	.10	.09	.14	.56	5.6	2.1	2.1	.50	.46
2	.14	.21	.17	.09	.09	.16	.56	5.6	1.9	1.9	.55	.42
3	.15	.28	.19	.09	.09	.20	.60	5.6	1.9	1.7	.50	.39
4	.16	.28	.18	.10	.09	.28	.68	5.1	1.8	1.6	.46	.39
5	.17	.25	.19	.10	.09	.44	.68	5.5	1.7	1.4	.41	.41
6	.16	.24	.17	.09	.09	.67	.74	8.6	1.6	1.3	.36	.45
7	.14	.24	.20	.09	.09	.85	.80	9.4	1.6	1.2	.42	.39
8	.14	.20	.19	.09	.09	.83	.96	9.8	3.3	1.2	.43	.42
9	.15	.21	.18	.10	.09	.66	1.1	9.3	4.1	1.1	.42	.37
10	.17	.19	.17	.10	.09	.55	1.2	8.4	3.4	1.0	.51	.37
11	.17	.18	.16	.11	.09	.49	1.4	7.7	3.3	1.0	.45	.41
12	.17	.18	.16	.10	.09	.44	1.4	7.1	3.1	1.1	.60	.41
13	.17	.17	.17	.09	.09	.48	1.2	6.3	2.9	1.1	.67	.35
14	.17	.16	.17	.07	.10	.52	1.3	5.6	2.8	.99	.58	.42
15	.17	.14	.17	.06	.11	.51	1.7	5.0	2.7	.99	.39	.72
16	.17	.14	.17	.06	.11	.54	2.2	4.6	2.6	.94	.33	.46
17	.17	.16	.17	.06	.11	.49	2.6	4.2	2.4	.91	.29	.43
18	.17	.17	.17	.06	.11	.53	3.0	3.6	2.3	.86	.28	.46
19	.17	.17	.16	.06	.12	.62	3.4	3.4	2.2	.77	.27	.41
20	.28	.17	.16	.06	.11	.67	3.4	3.3	2.1	.74	.22	.38
21	.22	.17	.15	.06	.10	.63	3.2	3.4	2.0	.70	.28	.37
22	.19	.17	.14	.07	.10	.65	3.3	3.0	1.8	.66	1.1	.36
23	.20	.17	.15	.07	.10	.63	3.7	2.8	1.7	.63	.86	.34
24	.21	.17	.15	.07	.11	.60	4.0	3.0	1.7	.62	.65	.33
25	.21	.17	.14	.07	.12	.54	4.2	2.9	1.6	.59	.53	.32
26	.21	.17	.13	.07	.13	.53	4.7	2.7	1.5	.54	.58	.33
27	.21	.17	.12	.08	.14	.51	5.1	2.6	1.4	.51	.75	.33
28	.21	.17	.13	.09	.14	.51	5.1	2.4	1.3	.50	.69	.33
29	.21	.17	.13	.09	---	.48	5.2	2.4	2.5	.48	.60	.33
30	.21	.17	.11	.08	---	.46	5.3	2.3	2.5	.44	.50	.33
31	.21	---	.10	.09	---	.45	---	2.2	---	.42	.48	---
TOTAL	5.62	5.65	4.94	2.52	2.88	16.06	73.28	153.4	67.8	29.99	15.66	11.89
MEAN	.18	.19	.16	.08	.10	.52	2.44	4.95	2.26	.97	.51	.40
MAX	.28	.28	.20	.11	.14	.85	5.3	9.8	4.1	2.1	1.1	.72
MIN	.14	.14	.10	.06	.09	.14	.56	2.2	1.3	.42	.22	.32
AC-FT	11	11	9.8	5.0	5.7	32	145	304	134	59	31	24

CAL YR 1986 TOTAL 133.41 MEAN .37 MAX13 MIN .06 AC-FT 265
WTR YR 1987 TOTAL 389.69 MEAN 1.07 MAX 9.8 MIN .06 AC-FT 773

07103990 COTTONWOOD CREEK AT MOUTH AT PIKEVIEW, CO

LOCATION.--Lat 38°55'41", long 104°38'35", in SW¼SW¼ sec.8, T. 13S, R.67W., El Paso County, Hydrologic Unit 11020003, on left bank 70 ft upstream from Vincent Drive bridge, 0.3 mi south of Woodman Valley Road, and 0.3 mi upstream from mouth.

DRAINAGE AREA.--18.7 mi^2.

PERIOD OF RECORD.--December 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,265 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 12-14, and Dec. 8 to Mar. 3. Records fair except for estimated daily discharges, and those for discharges above about 60 ft^3/s, which are poor. Natural flow of stream affected by storage reservoirs and runoff from industrial and residential areas of northeast Colorado Springs.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 830 ft^3/s, Aug. 21, 1986, gage height, 7.68 ft, from rating curve extended above about 60 ft^3/s, on basis of computation of peak flow at width contraction; minimum daily, 1.0 ft^3/s, Oct. 8, 1986.

EXTREMES FOR CURRENT YEAR.-- Maximum discharge, 605 ft^3/s, at 1415 May 16, gage height, 6.44 ft; minimum daily, 1.0 ft^3/s, Oct. 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	5.9	7.5	2.2	2.9	3.2	5.8	4.9	4.4	6.6	4.6	3.6
2	1.2	3.3	3.6	2.2	2.9	4.5	6.6	19	3.8	5.6	4.4	3.5
3	3.9	3.1	4.8	2.4	2.8	8.0	6.6	28	3.9	6.0	4.7	2.8
4	1.7	3.7	4.8	2.6	2.8	13	8.4	7.4	5.1	6.9	4.2	4.7
5	1.1	3.5	4.6	2.6	2.7	20	6.6	6.9	4.9	5.6	3.4	29
6	1.3	3.4	3.3	2.7	2.8	9.3	6.5	6.9	5.0	4.3	3.1	5.5
7	1.3	2.9	2.8	2.8	2.8	9.5	6.7	6.1	5.1	4.2	2.7	3.5
8	1.0	2.8	2.2	2.7	2.7	6.8	7.2	6.1	82	5.5	2.5	3.8
9	1.2	2.8	1.7	2.7	2.7	3.9	6.1	5.7	20	3.1	30	3.2
10	1.3	2.6	1.6	2.8	2.5	5.5	6.6	6.3	6.7	3.1	7.3	3.9
11	1.3	2.9	2.0	2.9	2.5	5.7	8.7	8.2	5.9	4.5	4.2	4.1
12	1.1	2.3	2.1	2.9	2.4	6.7	7.7	7.9	4.9	5.8	3.5	4.5
13	1.1	2.0	2.3	2.8	2.4	7.1	6.9	12	5.9	5.1	2.8	3.9
14	1.3	2.2	2.2	2.5	2.2	6.3	7.0	16	5.2	4.6	2.6	3.3
15	1.5	2.5	2.2	2.0	2.2	5.0	7.9	15	5.0	6.4	4.7	3.4
16	1.5	2.3	2.0	1.3	2.2	9.2	7.9	42	4.4	9.4	4.8	3.3
17	1.6	2.2	2.1	1.7	2.3	13	7.3	9.6	4.5	7.6	3.7	4.2
18	1.5	3.2	2.2	1.8	2.1	24	6.0	6.9	4.9	4.3	3.8	3.4
19	1.5	2.4	2.3	1.8	2.0	24	5.2	4.5	4.5	5.1	4.0	4.0
20	13	2.3	2.5	1.6	1.8	5.0	4.2	4.3	6.9	5.1	3.7	4.6
21	1.3	2.7	2.4	1.6	1.6	5.0	3.3	5.9	6.6	5.9	3.4	4.9
22	1.4	3.0	2.4	1.7	1.6	5.0	4.8	4.6	5.5	5.7	36	5.2
23	1.2	2.9	2.5	1.9	1.7	3.7	5.5	3.3	5.4	4.8	5.2	5.1
24	1.2	3.1	2.5	2.0	1.9	4.8	5.7	26	4.8	4.1	5.3	4.4
25	1.3	2.9	2.3	2.2	1.9	4.2	5.0	5.2	4.7	6.6	8.3	4.9
26	1.2	3.2	2.3	2.2	2.0	5.2	4.5	4.0	4.4	7.6	28	4.8
27	1.9	2.6	2.4	2.3	2.0	4.5	5.7	3.3	5.4	7.1	20	12
28	2.3	3.0	2.6	2.3	2.6	2.2	6.5	4.7	6.2	6.5	17	5.1
29	2.0	2.9	2.5	2.5	---	2.2	6.1	4.3	55	5.5	4.0	5.3
30	1.7	2.5	2.5	2.7	---	3.5	5.5	4.1	9.5	5.9	3.4	3.7
31	3.3	---	2.0	2.8	---	4.8	---	3.7	---	4.6	3.4	---
TOTAL	59.7	87.1	85.2	71.2	65.0	234.8	188.5	292.8	300.5	173.1	238.7	157.6
MEAN	1.93	2.90	2.75	2.30	2.32	7.57	6.28	9.45	10.0	5.58	7.70	5.25
MAX	13	5.9	7.5	2.9	2.9	24	8.7	42	82	9.4	36	29
MIN	1.0	2.0	1.6	1.3	1.6	2.2	3.3	3.3	3.8	3.1	2.5	2.8
AC-FT	118	173	169	141	129	466	374	581	596	343	473	313

CAL YR 1986 TOTAL 1357.6 MEAN 3.72 MAX 73 MIN 1.0 AC-FT 2690
WTR YR 1987 TOTAL 1954.2 MEAN 5.35 MAX 82 MIN 1.0 AC-FT 3880

07104000 MONUMENT CREEK AT PIKEVIEW, CO

LOCATION.--Lat 38°55'04", long 104°49'05", in NW¼SE¼ sec.18, T.13 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on right bank at downstream side of abandoned bridge at northeast edge of Pikeview, 600 ft upstream from unnamed tributary, 1,200 ft upstream from bridge on U.S. Interstate Highway I-25, and 0.7 mi downstream from Dry Creek.

DRAINAGE AREA.--204 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to September 1949, January 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,203.26 ft above National Geodetic Vertical Datum of 1929. September 1938 to October 1949, nonrecording gage at present site at datum 0.10 ft, lower.

REMARKS.--Estimated daily discharges: Nov. 7 to Dec. 2, Dec. 7 to Jan. 12, Jan. 17-29, and Feb. 19 to Mar. 13. Records good except for, Jan. 13-16, Jan. 30 to Feb. 18, Mar. 14 to May 2, and July 1 to Aug. 6 , which are fair, and May 3 to June 30, Aug. 7-30, and estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation, municipal use and return flow from irrigation, and sewage-effluent discharge.

AVERAGE DISCHARGE.--22 years (water years 1939-49, 1977-87), 29.0 ft³/s; 21,010 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,750 ft³/s, Aug. 5, 1981, gage height, 7.48 ft, from rating curve extended above 100 ft³/s, on basis of slope-area measurement of peak flow; no flow July 24, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 30, 1935, reached a stage of about 14 ft, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,290 ft³/s at 1600 June 8, gage height, 4.72 ft, from rating curve extended above 250 ft³/s, on basis of three slope-area measurements of peak flow, maximum gage height, 4.73 ft, May 16; minimum daily discharge, 10 ft³/s, Oct. 1-2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	30	22	15	19	20	56	67	97	42	23	18
2	10	24	25	16	17	26	57	75	90	39	20	18
3	15	23	27	17	18	25	59	102	80	39	17	18
4	17	24	25	18	18	60	61	102	78	38	20	18
5	19	20	27	17	18	45	54	110	76	35	20	45
6	19	17	27	16	17	30	47	209	72	32	18	15
7	16	16	23	14	20	31	51	240	74	30	22	13
8	16	15	19	12	19	29	56	212	231	37	22	13
9	15	16	17	14	14	29	55	186	118	36	36	15
10	15	22	14	15	13	31	54	150	101	33	24	13
11	15	17	17	16	12	27	57	137	88	33	27	13
12	15	16	18	16	13	28	62	125	76	38	27	17
13	20	16	20	14	14	34	54	121	65	30	25	17
14	22	18	19	13	19	44	55	117	61	27	24	18
15	20	16	19	11	15	52	63	121	60	31	22	17
16	17	17	18	11	15	66	68	174	60	29	21	17
17	15	17	16	14	17	59	67	140	57	32	21	19
18	16	17	17	15	14	64	74	149	57	26	23	16
19	15	16	17	15	13	69	85	138	57	27	19	18
20	29	17	19	14	13	48	74	126	59	27	21	15
21	15	18	18	14	12	48	68	144	60	27	27	16
22	14	18	17	15	13	54	65	126	57	29	59	18
23	17	19	18	16	13	60	69	124	52	30	32	19
24	20	19	18	18	14	56	84	206	51	26	30	20
25	22	20	17	21	15	51	86	179	53	23	29	25
26	17	23	19	23	16	48	78	163	57	21	54	26
27	17	22	20	25	15	40	67	135	58	21	49	35
28	18	22	21	26	17	43	68	107	48	23	41	21
29	18	23	19	24	---	43	72	103	72	24	28	20
30	16	24	18	21	---	54	70	115	49	21	20	19
31	17	---	16	17	---	55	---	112	---	21	15	---
TOTAL	527	582	607	513	433	1369	1936	4315	2214	927	836	572
MEAN	17.0	19.4	19.6	16.5	15.5	44.2	64.5	139	73.8	29.9	27.0	19.1
MAX	29	30	27	26	20	66	86	240	231	42	59	45
MIN	10	15	14	11	12	20	47	67	48	21	15	13
AC-FT	1050	1150	1200	1020	859	2720	3840	8560	4390	1840	1660	1130

CAL YR 1986 TOTAL 8089.5 MEAN 22.2 MAX 125 MIN 8.3 AC-FT 16050
WTR YR 1987 TOTAL 14831 MEAN 40.6 MAX 240 MIN 10 AC-FT 29420

07104000 MONUMENT CREEK AT PIKEVIEW, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1975 to current year.

REMARKS.--Periodic sediment data for water year 1986 are published in this report. Discharge and selected water-quality data for a synoptic sampling are published elsewhere in this report.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB					
19...	1030	26	377	26	72
MAR					
19...	1045	16	327	14	68
APR					
14...	1240	28	830	64	76
16...	1030	33	302	27	77
MAY					
28...	1045	21	198	11	53
JUL					
23...	1040	16	267	12	78
AUG					
20...	1050	12	935	30	--
25...	1335	23	266	16	89
SEP					
18...	1045	12	165	6.0	52

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT									
15...	1040	20	434	8.10	8.5	10.3	E1.2	K23	230
NOV									
13...	1130	E16	471	8.20	0.0	10.8	>6.0	E5	E170
DEC									
18...	1355	E17	470	8.30	0.0	11.3	E12	K20	K87
JAN									
21...	1100	E14	466	7.80	0.0	8.2	5.6	K12	K58
FEB									
19...	1345	E13	367	8.10	1.0	11.0	6.6	K17	53
MAR									
19...	1255	84	352	8.30	11.0	8.5	5.8	K180	720
APR									
23...	1415	69	220	8.20	15.5	7.8	2.0	K100	K610
MAY									
28...	1415	105	215	8.30	17.5	7.4	E0.9	K70	150
JUN									
24...	1145	50	326	8.30	23.0	7.1	0.6	320	680
JUL									
30...	1245	21	394	8.40	25.0	6.3	0.4	330	580
AUG									
20...	1245	22	464	8.50	24.5	6.4	0.9	K880	870
SEP									
17...	1325	18	434	8.40	15.0	7.8	0.9	140	240

E ESTIMATED
K BASED ON NON-IDEAL COLONY COUNT

07104000 MONUMENT CREEK AT PIKEVIEW, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)
OCT 15...	109	64	17	91	0.860	--	2.30	<1
NOV 13...	106	70	18	133	1.60	3.0	2.40	<1
DEC 18...	107	76	24	144	1.30	2.1	2.80	<1
JAN 21...	117	80	23	23	3.30	3.5	2.60	<1
FEB 19...	82	59	21	319	2.50	3.8	1.60	<1
MAR 19...	50	60	14	1540	0.870	1.7	1.20	<1
APR 23...	52	35	9.8	436	0.150	1.0	0.600	<1
MAY 28...	57	32	10	225	0.080	1.0	0.700	<1
JUN 24...	83	51	11	164	0.040	0.50	1.40	<1
JUL 30...	107	65	14	88	0.020	1.1	1.60	<1
AUG 20...	117	80	15	381	0.010	1.3	2.00	<1
SEP 17...	121	65	17	100	<0.010	0.50	1.90	<1

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT 15...	<10	5	2000	20	65	90	20	160
NOV 13...	<10	5	2800	<10	6	110	30	40
DEC 18...	<10	7	3200	50	<5	120	40	30
JAN 21...	<10	5	970	60	<5	70	50	10
FEB 19...	<10	12	7600	20	13	240	50	40
MAR 19...	<10	24	26000	<10	21	650	20	160
APR 23...	<10	8	5600	50	10	240	10	50
MAY 28...	<10	18	5300	30	<5	150	<10	40
JUN 24...	<10	7	4400	<10	5	120	<10	30
JUL 30...	<10	4	2500	20	9	80	<10	<10
AUG 20...	--	10	8600	120	11	200	10	80
SEP 17...	<10	5	3300	20	6	100	<10	20

07104905 MONUMENT CREEK AT BIJOU STREET AT COLORADO SPRINGS, CO

LOCATION.--Lat 38°50'14", long 104°49'44", in NW¼NW¼ sec.18, T.14 S., R.66 W., El Paso County, Hydrologic Unit 11020003 at bridge on Bijou Street in Colorado Springs.

PERIOD OF RECORD.--December 1979 to current year.

REMARKS.--Periodic sediment data for the 1986 water year are published in this report.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
17...	1035	32	259	22	79
NOV					
15...	1040	30	411	34	57
DEC					
18...	1025	31	374	32	3[illegible]
JAN					
28...	1215	24	702	45	50
FEB					
19...	1250	26	296	21	88
MAR					
19...	1230	18	202	10	69
APR					
16...	1225	36	453	44	68
MAY					
28...	1240	20	328	18	65
JUL					
23...	1230	20	273	15	91
SEP					
18...	1240	12	136	4.4	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT									
15...	1150	19	580	8.4	12.5	9.1	0.5	100	310
NOV									
13...	1320	26	646	8.3	0.0	11.8	E5.0	E60	E58
DEC									
18...	1605	16	691	8.3	0.0	11.4	E5.0	K20	38
JAN									
21...	1230	13	730	7.2	0.0	9.1	3.1	K7	K73
FEB									
19...	1545	32	512	8.2	0.5	11.2	10	K25	230
MAR									
19...	1555	139	430	8.2	11.5	8.3	4.9	2900	3700
APR									
23...	1615	74	297	8.3	18.5	7.4	1.5	K27	520
MAY									
28...	1615	77	281	8.3	17.5	7.6	1.0	K35	200
JUN									
24...	1345	35	452	8.4	25.0	6.6	0.9	410	540
JUL									
30...	1430	16	615	8.4	31.5	5.8	0.6	880	520
AUG									
20...	1435	14	721	8.4	25.5	6.2	3.0	E1200	1300
SEP									
17...	1510	47	480	8.2	17.5	7.3	E19	K16000	K35000

E Estimated
K Based On Non-Ideal Colony Count

07104905 MONUMENT CREEK AT BIJOU STREET AT COLORADO SPRINGS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)
OCT 15...	136	120	19	146	0.41	0.30	4.00	<1
NOV 13...	138	130	21	310	0.40	2.2	3.70	<1
DEC 18...	144	160	26	235	0.37	1.5	4.60	<1
JAN 21...	157	180	31	44	0.96	2.1	5.80	<1
FEB 19...	100	96	33	520	1.10	3.0	2.60	<1
MAR 19...	90	91	17	2250	0.28	1.9	2.40	<1
APR 23...	64	59	12	698	0.06	0.90	1.10	<1
MAY 28...	69	50	11	<1	0.04	1.1	1.00	<1
JUN 24...	--	92	12	--	0.04	0.60	1.80	<1
JUL 30...	139	150	18	94	0.02	0.80	2.70	<1
AUG 20...	157	170	21	51	<0.01	0.80	2.80	<1
SEP 17...	135	99	16	527	0.14	2.8	2.40	1

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT 15...	<10	7	3900	<10	30	100	<10	120
NOV 13...	<10	11	7600	<10	12	210	<10	50
DEC 18...	<10	10	6000	20	17	190	10	50
JAN 21...	<10	15	1600	<10	<5	60	10	20
FEB 19...	<10	30	1200	530	24	350	30	80
MAR 19...	<10	40	37000	<10	31	980	<10	240
APR 23...	<10	11	8200	<10	14	330	<10	50
MAY 28...	<10	10	6500	<10	<5	150	<10	40
JUN 24...	<10	7	3300	<10	6	100	<10	30
JUL 30...	<10	5	2200	<10	<5	70	<10	<10
AUG 20...	<10	7	2300	180	<5	50	<10	40
SEP 17...	<10	30	24000	20	42	610	<10	250

07105500 FOUNTAIN CREEK AT COLORADO SPRINGS, CO

LOCATION.--Lat 38°48'59", long 104°49'20", in NE¼SW¼ sec.19, T.14 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on left bank 31 ft upstream from bridge on Nevada Ave. in Colorado Springs, 100 ft downstream from mouth of Cheyenne Creek, and 1.3 mi downstream from Monument Creek.

DRAINAGE AREA.--392 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to September 1924, January 1976 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Elevation of gage is 5,900 ft above National Geodetic Verticle Datum of 1929, from topographic map. Prior to Oct. 1, 1972, nonrecording gage at same site at different datum.

REMARKS.--Estimated daily discharges: Jan. 15-23, and Feb. 14-26. Records good except for, June 8-29, and Aug. 9-22, which are fair, Dec. 8-10, 22-29, Jan. 1, 9-10, and estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation and municipal use, return flow from irrigated areas and discharges from sewage treatment plants.

AVERAGE DISCHARGE.--14 years (water years 1922-24, 1977-87), 64.8 ft^3/s; 46,950 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,000 ft^3/s, July 29, 1978, gage height, 7.15 ft, from rating curve extended above 2,400 ft^3/s; minimum daily, 2.0 ft^3/s, Aug. 19, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,770 ft^3/s at 1715 June 8, gage height, 5.94 ft, from rating curve extended on basis of slope-area measurement of peak flow; minimum daily, 17 ft^3/s, Jan. 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	101	35	20	36	57	51	141	132	249	29	38
2	19	41	35	29	38	73	56	170	109	182	44	36
3	39	37	35	29	36	80	62	265	92	162	43	36
4	32	33	34	33	35	80	63	222	91	151	34	46
5	26	26	35	35	38	83	71	212	85	137	30	68
6	26	23	36	31	33	86	50	302	78	128	25	74
7	21	25	35	29	33	93	54	377	91	105	25	43
8	22	23	31	29	33	80	56	357	552	114	25	35
9	21	25	33	26	31	56	58	331	403	102	63	32
10	24	24	22	26	31	63	57	297	222	69	58	32
11	25	25	46	35	31	47	69	298	200	57	36	37
12	29	23	43	36	29	47	92	300	183	95	41	33
13	35	24	34	35	27	51	76	295	170	78	67	25
14	36	29	33	33	33	58	74	274	163	68	52	26
15	33	27	30	25	27	64	84	258	156	61	29	45
16	32	25	35	17	26	142	96	277	151	55	24	30
17	27	26	37	20	27	99	109	222	126	55	23	37
18	23	25	31	30	40	103	127	212	115	54	21	33
19	27	27	29	36	26	98	146	228	130	31	20	24
20	103	28	24	33	24	67	148	217	125	27	21	22
21	57	29	24	35	23	51	126	269	155	27	33	23
22	29	28	22	38	23	56	118	226	135	28	200	22
23	28	27	23	41	22	54	121	209	108	30	86	22
24	33	30	24	45	25	54	136	322	112	29	64	21
25	35	29	22	54	21	41	139	257	132	27	69	24
26	28	33	20	60	21	40	133	211	131	25	152	22
27	28	29	22	50	22	40	121	187	133	25	185	51
28	29	30	24	55	42	32	124	167	112	24	113	37
29	29	30	27	39	---	36	125	153	483	28	76	28
30	29	31	33	32	---	44	130	162	326	24	52	28
31	40	---	23	40	---	50	---	156	---	23	45	---
TOTAL	987	913	937	1076	833	2025	2872	7574	5201	2270	1785	1030
MEAN	31.8	30.4	30.2	34.7	29.7	65.3	95.7	244	173	73.2	57.6	34.3
MAX	103	101	46	60	42	142	148	377	552	249	200	74
MIN	19	23	20	17	21	32	50	141	78	23	20	21
AC-FT	1960	1810	1860	2130	1650	4020	5700	15020	10320	4500	3540	2040

CAL YR 1986 TOTAL 12820 MEAN 35.1 MAX 225 MIN 12 AC-FT 25430
WTR YR 1987 TOTAL 27503 MEAN 75.4 MAX 552 MIN 17 AC-FT 54550

07105500 FOUNTAIN CREEK AT COLORADO SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1975 to current year.

REMARKS.--Periodic sediment data for water year 1986 are published in this report.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
17...	1220	40	628	68	18
28...	1415	56	249	38	41
NOV					
15...	1255	51	326	45	66
DEC					
18...	1240	52	419	59	35
JAN					
28...	1415	37	452	45	53
FEB					
19...	1445	33	308	27	62
MAR					
19...	1440	29	245	19	47
APR					
14...	1630	50	485	65	59
16...	1445	39	377	40	63
MAY					
28...	1455	21	172	9.9	--
JUL					
23...	1440	25	162	11	--
AUG					
20...	1515	18	321	15	--
SEP					
18...	1515	17	55	2.5	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT									
15...	1415	34	602	8.4	15.0	9.0	E0.5	130	260
NOV									
13...	1600	39	660	8.2	0.0	12.3	3.0	K60	490
DEC									
17...	1345	35	538	8.2	3.0	E11.3	--	K8	K73
JAN									
21...	1420	39	744	8.3	2.0	8.8	2.1	K8	K55
FEB									
18...	1330	74	542	7.2	3.5	10.6	10	K1600	K2500
MAR									
18...	1100	65	532	8.2	7.0	9.5	3.3	K27	K260
APR									
22...	1415	119	307	8.3	17.0	7.8	2.4	K14	450
MAY									
27...	1315	191	232	8.2	16.0	8.0	E1.5	K100	240
JUN									
24...	1615	110	338	8.2	20.5	7.5	1.0	K470	K840
JUL									
29...	1200	30	--	8.5	26.0	7.0	1.0	>300	900
AUG									
19...	1230	21	--	8.5	24.5	7.2	0.4	>300	410
SEP									
16...	1115	28	603	8.3	16.5	6.1	2.0	K1700	K1900

E ESTIMATED.
K BASED ON NON-IDEAL COLONY COUNT

07105500 FOUNTAIN CREEK AT COLORADO SPRINGS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
OCT								
15...	137	130	22	82	0.21	0.40	2.60	<1
NOV								
13...	143	140	21	430	0.29	1.8	3.10	<1
DEC								
17...	113	110	20	109	0.16	1.0	2.40	<1
JAN								
21...	153	150	40	57	0.27	1.0	3.90	1
FEB								
18...	101	130	34	874	0.42	3.8	2.10	<1
MAR								
18...	102	110	28	236	0.57	1.5	1.90	<1
APR								
22...	68	61	10	492	0.05	0.70	1.00	<1
MAY								
27...	59	41	8.8	211	0.04	0.70	0.70	<1
JUN								
24...	71	68	9.8	110	0.02	0.50	1.10	<1
JUL								
29...	143	160	19	84	<0.01	0.70	2.30	<1
AUG								
19...	158	180	21	48	0.01	0.70	2.40	<1
SEP								
16...	139	130	21	144	<0.01	0.50	2.10	1

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT								
15...	<10	6	2300	<10	20	140	50	--
NOV								
13...	<10	16	7000	<10	12	290	60	70
DEC								
17...	--	10	3100	20	7	160	60	40
JAN								
21...	<10	6	2000	20	7	120	60	20
FEB								
18...	<10	28	2600	20	53	--	30	240
MAR								
18...	<10	17	5000	<10	6	210	60	50
APR								
22...	<10	13	6800	20	14	310	<10	50
MAY								
27...	<10	11	6800	<10	<5	220	<10	50
JUN								
24...	<10	7	3600	160	10	170	20	40
JUL								
29...	<10	4	2100	20	<5	140	40	10
AUG								
19...	<10	6	1800	190	<5	120	70	20
SEP								
16...	<10	11	4300	10	23	160	40	50

07105510 FOUNTAIN CREEK ABOVE SEWAGE DISPOSAL PLANT AT COLORADO SPRINGS, CO

LOCATION.--Lat 38°48'49", long 104°48'42", in SW¼SW¼ sec. 20, T. 14 S., R. 66 W., El Paso County, Hydrologic Unit 11020003, on left bank, 15 ft upstream from Colorado Springs wastewater outfall, 0.3mi downstream from Shooks Run, an 0.7mi downstream from streamflow gaging station 07105500 at Nevada Avenue bridge.

PERIOD OF RECORD.--March to September 1987.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
MAR									
18...	1255	77	683	8.30	11.0	8.4	3.2	K740	900
JUN									
24...	1755	98	305	8.10	19.5	7.0	1.2	K730	E1000
SEP									
16...	1300	41	653	8.30	18.5	7.2	2.2	K2500	K2800

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)
MAR								
18...	114	150	32	308	0.450	0.20	2.60	<1
JUN								
24...	69	57	9.4	119	0.020	0.50	1.00	<1
SEP								
16...	147	150	22	105	<0.010	0.80	2.40	<1

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
MAR								
18...	<10	11	7400	<10	19	260	50	70
JUN								
24...	<10	7	4300	<10	9	180	<10	40
SEP								
16...	<10	11	5400	20	9	190	40	60

E ESTIMATED
K BASED ON NON-IDEAL COLONY COUNT

07105530 FOUNTAIN CREEK BELOW JANITELL ROAD BELOW COLORADO SPRINGS, CO

LOCATION.--Lat 38°48'11", long 104°47'43", in NE¼SE¼ sec.29, T.14 S., R.66 W., El Paso County, Hydrologic Unit 11020003, approximately 200 ft downstream from Janitell Road below Colorado Springs.

PERIOD OF RECORD.--April 1975 to June 1976, May 1979 to September 1979, December 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)
OCT							
15...	1510	62	814	8.0	15.5	8.5	--
NOV							
13...	1710	E110	798	7.9	6.0	9.9	18
DEC							
17...	1600	102	743	7.8	7.5	9.5	--
JAN							
21...	1400	67	880	8.0	8.0	10.2	11
FEB							
18...	1530	117	651	7.1	5.5	9.6	16
MAR							
18...	1445	203	768	8.1	12.5	8.0	9.0
APR							
22...	1630	163	529	8.1	16.5	7.6	6.0
MAY							
27...	1530	238	493	8.0	16.5	7.5	E5.7
JUN							
24...	1300	173	544	7.9	20.0	7.0	7.8
JUL							
29...	1345	80	858	7.9	25.0	6.4	19
AUG							
19...	1415	67	--	7.8	22.5	5.9	9.0
SEP							
16...	1445	84	839	7.9	20.0	6.3	13

DATE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
OCT							
15...	K88	K190	41	7.70	13	2.10	--
NOV							
13...	120	K3000	85	7.40	13	2.30	--
DEC							
17...	K44	K2400	65	11.0	13	1.60	--
JAN							
21...	640	1700	27	10.0	11	2.50	1
FEB							
18...	650	4900	602	6.30	15	1.80	--
MAR							
18...	K3900	8100	498	4.30	25	2.40	--
APR							
22...	K80	350	306	3.90	4.9	1.40	--
MAY							
27...	K320	290	222	4.30	4.6	0.90	--
JUN							
24...	800	1300	86	5.20	9.1	1.00	--
JUL							
29...	660	370	49	9.10	17	1.50	--
AUG							
19...	290	240	9	9.40	--	1.80	--
SEP							
16...	E1400	E1300	46	8.00	15	1.80	--

E Estimated
K Based On Non-Ideal Colony Counts

07105780 B DITCH DRAIN NEAR SECURITY, CO

LOCATION.--Lat 38°45'09", long 104°45'43", in SW¼SE¼ sec.10, T. 15 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on left bank, on Fort Carson Military Reservation, 800 ft upstream from Interstate 25, 0.7 mi upstream from mouth, and 1.0 mi southwest of Security.

DRAINAGE AREA.--Undetermined.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1981 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,724 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 7-16, Jan. 15 to Feb. 1, Feb. 19-23, Mar. 28-30, and May 27 to July 6. Gage was discontinued May 27 and restarted July 6 at the request of the cooperator. Records good except those for periods of estimated daily discharges, which are poor. Unknown amounts of flow are introduced to the stream from activities in the cantonment area of Fort Carson, upstream.

AVERAGE DISCHARGE.--6 years (water years 1982-87), 1.08 ft³/s; 782 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,700 ft³/s, Aug. 15, 1981, gage height, 13.78 ft, result of slope-area measurement of peak flow; minimum daily, 0.02 ft³/s, Oct. 4, Dec. 26, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown; minimum daily, 0.04 ft³/s, Jan. 16-17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	2.1	.09	.19	.21	.21	.39	.18	.30	.82	.28	.27
2	.16	.50	.08	.24	.24	5.3	.35	.74	.27	.68	.24	.30
3	.48	.51	.08	.30	.20	8.1	.33	1.1	.24	.60	.21	.27
4	.20	.38	.09	.33	.17	6.4	.26	.24	.23	.54	.20	.27
5	.14	.32	.08	.21	.16	8.2	.47	.42	.25	.50	.22	.48
6	.16	.30	.08	.12	.18	4.0	.32	.32	.23	.45	.22	.32
7	.15	.27	.08	.11	.19	1.8	.26	.24	.22	.40	.28	.24
8	.14	.25	.06	.11	.16	1.3	.21	.23	30	.44	.22	.23
9	.15	.24	.05	.11	.18	1.0	.22	.22	20	.40	.51	.23
10	.23	.24	.05	.10	.46	1.2	.21	.22	.70	.35	.20	.29
11	.29	.27	.05	.13	.17	.93	.19	.34	.50	.36	.28	.27
12	.14	.23	.06	.14	.16	.81	.60	.26	.42	.50	.23	.26
13	.15	.25	.07	.11	.16	.80	.22	.38	.38	.37	.35	.25
14	.14	.28	.08	.10	.36	.75	.19	.63	.33	.34	.30	.24
15	.14	.22	.10	.08	.16	.80	.20	.29	.60	.33	.21	.29
16	.15	.20	.12	.04	.18	7.9	.19	.26	.40	.34	.19	.29
17	.15	.23	.13	.04	.16	8.2	.18	.38	.32	.48	.20	.24
18	.15	.22	.13	.05	.13	11	.18	.79	.28	.36	.18	.21
19	.15	.19	.15	.05	.10	4.7	.17	1.4	.26	.29	.16	.20
20	.58	.16	.16	.06	.10	1.4	.15	1.1	.25	.36	.17	.20
21	.29	.17	.14	.07	.10	1.1	.16	21	.24	.26	.46	.21
22	.16	.15	.14	.08	.10	.87	.18	15	.23	.26	3.2	.20
23	.14	.13	.16	.10	.11	.81	.24	3.3	.40	.26	.38	.19
24	.13	.13	.15	.11	.12	.73	.19	3.8	.26	.26	.20	.19
25	.12	.12	.14	.14	.12	.73	.17	.62	.24	.25	2.5	.19
26	.11	.10	.17	.18	.14	.67	.17	.50	.23	.22	1.9	.19
27	.14	.09	.21	.21	.19	.57	.17	.48	.22	.24	.65	.20
28	.13	.08	.22	.27	.19	.56	.18	.42	.22	.25	.40	.19
29	.13	.08	.23	.22	---	.54	.18	1.8	15	.24	.30	.19
30	.13	.05	.25	.20	---	.54	.18	.50	10	.24	.28	.19
31	.52	---	.21	.20	---	.53	---	.35	---	.23	.27	---
TOTAL	6.01	8.46	3.81	4.40	4.90	82.45	7.11	57.51	83.22	11.62	15.39	7.29
MEAN	.19	.28	.12	.14	.17	2.66	.24	1.86	2.77	.37	.50	.24
MAX	.58	2.1	.25	.33	.46	11	.60	21	30	.82	3.2	.48
MIN	.11	.05	.05	.04	.10	.21	.15	.18	.22	.22	.16	.19
AC-FT	12	17	7.6	8.7	9.7	164	14	114	165	23	31	14

CAL YR 1986 TOTAL 240.56 MEAN .66 MAX 65 MIN .05 AC-FT 477
WTR YR 1987 TOTAL 292.17 MEAN .80 MAX 30 MIN .04 AC-FT 580

07105780 B DITCH DRAIN NEAR SECURITY, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT											
15...	1430	0.15	7400	8.3	14.0	13.0	E1.2	15	0.11	0.40	42.0
NOV											
13...	1400	0.29	7500	8.1	2.0	14.4	1.5	2	0.06	3.9	42.0
DEC											
17...	1430	0.17	7500	8.1	1.5	12.2	14	15	0.24	1.9	36.0
JAN											
22...	1245	0.10	7800	8.0	0.0	11.4	5.2	11	0.52	4.5	49.0
FEB											
19...	1100	0.10	6300	8.0	0.0	12.1	2.0	44	0.08	2.1	29.0
MAR											
18...	1415	43	1620	7.9	10.0	8.8	17	4150	0.14	1.9	4.80
APR											
22...	1515	0.21	7670	8.2	23.5	11.8	E1.8	15	0.14	2.5	45.0
MAY											
27...	1400	0.54	5440	8.0	23.0	6.4	E1.9	7	0.18	3.2	30.0
JUN											
24...	1545	0.26	5250	8.2	26.0	9.2	2.1	33	0.12	2.6	23.0
JUL											
29...	1415	0.21	6730	8.2	32.0	9.2	3.6	8	0.06	3.2	37.0
AUG											
20...	1045	E0.19	6340	8.2	22.5	10.0	1.5	1	0.04	3.1	32.0
SEP											
16...	1300	0.25	6440	8.1	20.0	8.2	0.6	1	0.05	2.2	34.0

E ESTIMATED

07105800 FOUNTAIN CREEK AT SECURITY, CO

LOCATION.--Lat 38°43'46", long 104°44'00", in SW¼ sec.24, T.15 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on left bank on upstream side of Carson Road bridge, 0.9 mi southwest of South Security School, 3.5 mi northeast of Fountain, and 5.5 mi upstream from Jimmy Camp Creek.

DRAINAGE AREA.--495 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to current year.

REVISED RECORDS.--WDR CO-85-1: 1984 (M).

GAGE.--Water-stage recorder. Elevation of gage is 5,640 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 26, 1966, at site 1,040 ft upstream at datum 6.00 ft, higher. Oct. 26, 1966, to July 18, 1972, at site 980 ft upstream at datum 6.00 ft, higher, July 19, 1972, to Feb. 20 1980, at site 980 ft downstream at datum 6.00 ft, lower. Feb. 21, 1980 to June 30, 1986 at present site at datum 3.00 ft, lower.

REMARKS.--No estimated daily discharges. Records good except those above 2,000 ft³/s, which are fair. Natural flow of stream affected by storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation of about 5,100 acres and municipal use, return flow from irrigated areas and flows from sewage treatment plants.

AVERAGE DISCHARGE.--23 years, 83.7 ft³/s; 60,640 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft³/s, July 24, 1965, gage height, 11.30 ft, site and datum then in use, from floodmarks, from rating curve extended above 2,900 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 1.9 ft³/s, Mar. 1, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,480 ft³/s at 1815 June 8, gage height, 6.96 ft, from rating curve based on slope-area measurements of peak flow; minimum daily, 54 ft³/s, Oct. 2, 6, 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	354	86	112	76	133	120	166	200	315	82	98
2	54	142	72	111	76	180	122	186	168	228	132	93
3	87	125	75	101	76	191	126	332	161	266	128	96
4	73	99	70	104	76	180	129	209	171	224	112	102
5	59	80	72	108	75	192	151	183	169	243	102	109
6	54	72	73	101	75	185	123	241	176	203	90	235
7	55	80	84	100	76	176	122	328	175	165	103	119
8	54	81	72	97	75	169	121	314	687	183	127	103
9	57	85	72	91	75	138	124	306	613	191	228	94
10	57	82	66	80	75	150	119	289	311	121	193	115
11	65	87	79	79	75	128	128	298	264	107	121	134
12	60	95	79	93	74	125	162	294	252	177	101	180
13	71	113	79	84	73	128	135	297	233	166	133	90
14	68	127	101	79	103	132	131	341	228	127	103	88
15	66	115	116	68	75	132	136	258	204	106	77	181
16	68	105	120	63	79	329	138	305	207	107	72	99
17	72	94	122	64	73	210	145	249	156	99	69	112
18	70	78	116	80	89	200	162	237	146	108	68	103
19	75	82	119	74	82	197	185	312	162	88	69	87
20	215	83	117	73	95	156	190	276	175	68	68	94
21	133	87	120	79	92	134	177	400	236	64	77	95
22	66	83	121	74	74	135	158	298	178	65	543	94
23	92	87	124	72	73	125	152	261	144	85	167	97
24	79	82	134	90	72	126	170	605	149	92	105	99
25	89	83	122	111	72	114	173	324	214	83	259	108
26	79	76	129	117	71	118	164	269	219	85	529	111
27	81	80	137	103	67	113	157	250	172	79	438	155
28	80	73	148	104	95	105	158	226	151	81	255	142
29	72	75	148	81	---	107	157	206	773	81	189	113
30	75	70	160	74	---	112	156	214	555	72	127	118
31	102	---	128	77	---	119	---	231	---	75	114	---
TOTAL	2383	2975	3261	2744	2189	4739	4391	8705	7649	4154	4981	3464
MEAN	76.9	99.2	105	88.5	78.2	153	146	281	255	134	161	115
MAX	215	354	160	117	103	329	190	605	773	315	543	235
MIN	54	70	66	63	67	105	119	166	144	64	68	87
AC-FT	4730	5900	6470	5440	4340	9400	8710	17270	15170	8240	9880	6870

CAL YR 1986 TOTAL 35071 MEAN 96.1 MAX 420 MIN 51 AC-FT 69560
WTR YR 1987 TOTAL 51635 MEAN 141 MAX 773 MIN 54 AC-FT 102400

07105800 FOUNTAIN CREEK AT SECURITY,CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1984 to current year.

REMARKS.--Periodic sediment data for the 1986 water year are published in this report.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
17...	1310	128	279	96	71
28...	1040	111	135	40	66
NOV					
15...	1405	120	200	65	61
DEC					
18...	1345	170	300	138	47
JAN					
28...	1510	79	119	25	79
FEB					
19...	1500	99	191	51	81
MAR					
19...	1550	103	112	31	--
APR					
14...	1700	79	168	36	82
16...	1550	79	128	27	90
JUN					
05...	1320	200	2080	1120	75
JUL					
11..	1230	79	325	69	49
AUG					
03...	1915	892	16800	40500	84
03...	1925	766	14700	30400	75
03...	1945	734	12600	25000	74
03...	2000	822	13000	28900	69
03...	2030	750	10400	21100	93
03...	2135	346	7810	7300	80
14...	1915	830	8570	19200	63
14...	1945	598	6470	10400	60
14...	2010	518	7410	10400	70
14...	2115	412	7180	7990	67
26...	1015	65	1100	193	90

07105820 CLOVER DITCH DRAIN NEAR WIDEFIELD, CO

LOCATION.--Lat 38°43'07", long 104°43'43", in SW¼NE¼ sec.25, T.15 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on left bank 200 ft downstream from Fort Carson Military Road No. 1, 500 ft upstream from bridge on Interstate 25, 0.2 mi upstream from mouth, and 1.2 mi south of Widefield.

DRAINAGE AREA.--Not determined.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1981 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,620 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 12, Jan. 17, 20, and May 21 to July 13, when gage was discontinued and restarted at cooperators request. Records good except those above 70 ft^3/s, and estimated daily discharges, which are poor. This station is operated primarily to monitor low flows downstream from Fort Carson sewage-treatment plant.

AVERAGE DISCHARGE.--6 years (water years 1982-87), 5.47 ft^3/s; 3,960 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,500 ft^3/s, July 28, 1982, gage height, 9.64 ft, from rating curve extended above 50 ft^3/s; no flow Oct. 5, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown; minimum daily, 2.5 ft^3/s, Dec. 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	11	3.9	2.9	4.3	6.6	4.1	5.0	4.6	25	4.4	6.3
2	4.5	5.0	3.5	3.5	4.0	10	5.4	7.7	4.5	22	5.0	7.0
3	5.3	5.1	3.4	3.8	3.7	11	5.8	11	4.8	9.6	4.6	7.0
4	4.2	4.3	3.3	4.0	3.7	9.9	5.4	5.4	4.5	12	2.9	5.1
5	4.6	4.3	3.5	3.7	3.6	12	6.9	5.2	4.8	8.5	3.0	7.9
6	4.9	3.8	3.6	3.3	3.8	8.0	5.6	6.9	4.6	5.0	3.6	5.9
7	4.4	4.3	3.9	3.7	3.9	6.0	4.9	4.8	4.4	5.4	7.3	5.0
8	3.6	3.9	4.1	4.3	3.9	6.2	4.9	5.1	50	5.6	6.4	4.9
9	3.1	3.6	3.7	3.5	3.3	5.4	4.8	5.4	30	4.8	9.3	4.6
10	4.5	4.3	3.2	3.5	3.1	5.3	5.7	5.2	17	4.3	6.2	5.3
11	5.9	4.3	3.6	3.6	3.6	4.9	5.5	5.4	12	5.8	5.1	4.4
12	4.9	4.3	2.9	3.6	3.6	4.4	7.5	5.1	8.2	4.6	5.1	3.8
13	4.6	4.1	3.3	3.7	3.8	4.9	5.2	5.3	6.4	4.3	8.7	5.4
14	4.7	3.2	3.8	3.4	5.4	4.0	4.3	9.4	6.0	4.0	8.6	5.0
15	4.2	3.0	4.1	3.4	3.4	3.9	4.2	5.6	14	3.4	7.7	4.8
16	3.3	3.8	3.7	3.6	3.5	19	4.1	6.0	7.0	3.2	8.3	5.5
17	3.1	4.4	3.5	3.4	3.6	17	4.7	5.9	5.0	5.1	7.8	5.6
18	4.5	5.0	4.1	3.3	3.0	20	5.1	6.3	4.5	4.5	6.8	5.4
19	5.0	4.5	4.1	3.4	3.1	16	3.6	8.6	4.3	4.3	7.0	5.0
20	6.3	3.7	3.3	3.4	5.3	7.3	4.4	7.7	4.2	4.7	6.2	5.3
21	3.7	3.3	3.1	3.6	4.3	5.9	4.8	41	4.2	4.3	9.3	4.8
22	3.1	4.3	3.4	3.5	3.7	5.0	3.3	34	4.1	4.2	30	4.4
23	4.2	4.3	3.0	4.0	3.4	5.2	5.0	25	6.6	3.7	13	4.1
24	4.2	4.1	2.9	5.1	3.3	5.2	5.7	8.0	4.3	4.4	14	4.0
25	4.5	3.5	2.5	7.4	3.5	5.0	5.0	8.8	4.2	3.9	20	3.7
26	4.3	2.7	2.8	5.8	3.2	4.6	5.1	6.0	4.1	3.9	29	5.3
27	4.3	3.3	3.4	5.3	3.4	4.3	5.4	4.5	4.1	4.3	13	4.9
28	3.2	3.0	3.4	6.7	4.0	4.5	4.1	4.8	8.0	3.5	8.5	5.3
29	2.9	3.4	3.4	4.3	---	4.9	3.9	8.0	35	3.8	7.7	3.6
30	3.4	3.2	3.3	4.0	---	4.4	3.8	6.0	20	4.2	7.7	3.1
31	5.4	---	3.1	4.5	---	3.3	---	4.7	---	4.7	6.7	---
TOTAL	133.5	125.0	106.8	125.2	104.4	234.1	148.2	277.8	295.4	191.2	282.9	152.4
MEAN	4.31	4.17	3.45	4.04	3.73	7.55	4.94	8.96	9.85	6.17	9.13	5.08
MAX	6.3	11	4.1	7.4	5.4	20	7.5	41	50	25	30	7.9
MIN	2.9	2.7	2.5	2.9	3.0	3.3	3.3	4.5	4.1	3.2	2.9	3.1
AC-FT	265	248	212	248	207	464	294	551	586	379	561	302

CAL YR 1986 TOTAL 1797.0 MEAN 4.92 MAX 45 MIN 2.4 AC-FT 3560
WTR YR 1987 TOTAL 2176.9 MEAN 5.96 MAX 50 MIN 2.5 AC-FT 4320

07105820 CLOVER DITCH DRAIN NEAR WIDEFIELD, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 15...	1600	5.6	1330	8.0	16.0	7.8	E31	21	8.00	13	4.80
NOV 13...	1600	4.5	1510	7.8	8.0	9.0	28	14	9.00	12	6.80
DEC 17...	1515	3.9	1360	7.9	8.0	9.3	E22	19	13.0	14	6.40
JAN 22...	1345	4.8	1370	7.9	7.0	10.2	25	22	12.0	18	7.60
FEB 19...	1300	3.2	1350	7.9	7.0	10.3	4.5	19	7.20	13	6.50
MAR 18...	1645	56	870	8.1	11.0	9.8	22	2070	1.00	3.9	2.10
APR 22...	1600	2.9	1690	8.4	21.0	8.9	E14	16	5.20	4.9	4.50
MAY 27...	1600	4.5	1670	8.0	20.5	6.2	E14	14	6.70	>6.0	6.20
JUN 24...	1645	4.2	1440	8.0	23.0	6.2	9.9	23	5.40	9.0	6.30
JUL 30...	1130	3.2	1530	8.1	25.0	7.3	E8.1	13	0.06	3.5	5.50
AUG 20...	1200	6.1	1740	8.1	23.5	7.6	11	<1	3.40	5.4	5.50
SEP 16...	1400	5.6	1440	8.00	19.5	8.0	15	3	3.00	6.0	7.40

E ESTIMATED

07105900 JIMMY CAMP CREEK AT FOUNTAIN, CO

LOCATION.--Lat 38°41'04", long 104°41'17", in NW¼SE¼ sec.5, T.16 S., R.65 W., El Paso County, Hydrologic Unit 11020003, on right bank at downstream side of bridge on county road. 1,000 ft east of Fountain, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--65.6 mi^2.

PERIOD OF RECORD.--January 1976 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,530 ft above National Geodetic Vertical Datum of 1929, from topographic map. January 1976 to Sept. 3, 1986 at datum 4.0 ft, higher.

REMARKS.--Estimated daily discharges: Dec. 7-11, Jan. 15-23, Feb. 19-28, and Mar. 29,30. Records fair due to unstable channel conditions except those for estimated daily discharges, and those from 10 to 1,000 ft^3/s, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--11 years, 2.55 ft^3/s; 1,850 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,600 ft^3/s, July 28, 1985, gage height, 6.25 ft, from floodmark, from rating curve extended above 1,300 ft^3/s, on basis of slope-area measurement of peak flow; minimum daily, 0.20 ft^3/s, July 18, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 154 ft^3/s at 1900 June 8, gage height, 5.57 ft, from rating curve extended above 1,300 ft^3/s, on basis of slope-area measurement of peak flow; minimum daily, 1.1 ft^3/s, Aug. 4,7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	2.7	2.1	1.8	2.2	2.4	1.9	1.8	1.8	3.6	1.6	1.4
2	1.5	2.5	2.1	1.8	2.1	2.5	2.0	2.0	1.7	2.4	1.6	1.4
3	1.5	2.5	2.2	1.8	2.2	2.5	2.1	2.1	1.6	4.5	1.2	1.5
4	1.5	2.4	2.1	2.0	2.1	2.7	2.1	1.8	1.7	2.6	1.1	1.5
5	1.6	2.4	2.1	2.1	2.0	2.6	2.1	2.1	1.6	2.4	2.3	1.5
6	1.5	2.4	2.1	2.1	2.0	2.4	2.0	1.9	1.6	2.4	1.3	1.5
7	1.4	2.5	2.0	2.0	2.0	2.4	2.0	1.8	1.6	2.2	1.1	1.5
8	1.5	2.4	1.9	2.1	1.9	2.5	2.1	1.8	5.2	2.2	1.2	1.5
9	1.5	2.4	1.8	2.1	1.9	2.5	2.1	1.9	2.5	2.1	1.2	1.4
10	1.7	2.3	1.8	2.1	2.1	2.5	2.1	2.0	2.0	2.0	1.5	1.4
11	1.7	2.4	1.9	2.2	2.0	2.3	1.9	2.3	1.9	1.9	1.4	1.4
12	2.0	2.2	2.0	2.3	1.9	2.2	2.1	1.9	2.1	1.9	1.3	1.5
13	2.1	2.2	1.9	2.4	1.9	2.1	1.8	1.9	2.2	1.8	1.3	1.4
14	1.9	2.3	1.8	2.3	2.2	2.1	1.8	2.1	2.4	1.7	1.3	1.4
15	1.9	2.2	1.8	2.0	2.2	2.0	1.7	1.6	4.2	1.7	1.4	1.4
16	1.9	2.3	1.8	1.7	2.2	3.4	1.7	1.7	2.4	1.5	1.2	1.2
17	2.0	2.3	1.7	1.5	2.2	2.6	1.7	1.7	2.1	1.5	1.2	1.3
18	2.0	2.3	1.7	1.5	2.2	2.5	2.0	1.7	2.2	1.2	1.2	1.4
19	2.0	2.3	1.7	1.5	2.1	2.4	2.3	1.7	2.2	1.2	1.3	1.5
20	2.0	2.2	1.8	1.5	2.0	2.2	2.2	1.8	2.2	1.3	1.3	1.5
21	2.1	2.3	1.7	1.6	1.9	2.2	2.2	1.8	2.3	1.4	1.3	1.4
22	2.2	2.3	1.7	1.6	1.9	2.4	2.3	1.8	2.2	1.6	1.8	1.3
23	2.1	2.3	1.8	1.6	1.8	2.6	2.2	1.9	2.3	1.5	1.4	1.3
24	2.0	2.3	1.8	1.7	1.8	2.5	2.1	2.2	2.6	1.4	1.3	1.2
25	2.1	2.3	1.8	1.9	1.9	2.3	2.1	2.0	2.8	1.5	1.4	1.3
26	2.1	2.3	1.7	2.0	1.9	2.3	1.9	1.9	2.4	1.4	4.5	1.3
27	2.1	2.2	1.7	2.0	1.9	2.1	1.8	1.9	2.4	1.3	3.8	1.4
28	2.2	2.3	1.8	2.2	2.1	2.1	1.7	2.1	2.2	1.4	1.3	1.4
29	2.1	2.2	1.8	2.4	---	2.0	2.7	2.1	2.5	1.5	1.3	1.5
30	2.2	2.1	1.7	2.4	---	2.0	1.9	2.0	3.4	1.5	1.4	1.5
31	2.3	---	1.7	2.3	---	2.0	---	1.9	---	1.6	1.4	---
TOTAL	58.0	69.8	57.5	60.5	56.6	73.3	60.6	59.2	70.3	58.2	47.9	42.2
MEAN	1.87	2.33	1.85	1.95	2.02	2.36	2.02	1.91	2.34	1.88	1.55	1.41
MAX	2.3	2.7	2.2	2.4	2.2	3.4	2.7	2.3	5.2	4.5	4.5	1.5
MIN	1.3	2.1	1.7	1.5	1.8	2.0	1.7	1.6	1.6	1.2	1.1	1.2
AC-FT	115	138	114	120	112	145	120	117	139	115	95	84

CAL YR 1986 TOTAL 963.67 MEAN 2.64 MAX 161 MIN .50 AC-FT 1910
WTR YR 1987 TOTAL 714.1 MEAN 1.96 MAX 5.2 MIN 1.1 AC-FT 1420

07105905 FOUNTAIN CREEK ABOVE LITTLE FOUNTAIN CREEK BELOW FOUNTAIN, CO

LOCATION.--Lat 38°37'50", long 104°40'50", in SW¼NW¼ sec.28, T.16 S., R.65 W., El Paso County, Hydrologic Unit 11020003, approximately 1 mi upstream from mouth of Little Fountain Creek below Fountain.

PERIOD OF RECORD.--April 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)
OCT							
15...	1200	E30	--	--	--	--	E9.3
NOV							
13...	1100	98	1080	7.8	6.0	10.8	31
DEC							
17...	1215	100	1040	7.9	6.0	11.5	E47
JAN							
21...	1200	84	1100	8.1	2.0	9.6	31
FEB							
18...	1115	100	970	8.1	5.0	9.0	31
MAR							
18...	1115	170	1000	8.0	10.0	8.6	24
APR							
22...	1230	190	700	8.0	15.0	6.8	E12
MAY							
27...	1145	170	688	8.1	15.5	7.3	E9.6
JUN							
24...	1115	134	794	8.0	19.0	6.4	7.2
JUL							
29...	1130	36	1190	8.1	26.0	6.2	4.5
AUG							
19...	1515	18	1350	8.1	27.5	5.2	1.8
SEP							
16...	1130	73	1070	8.1	18.5	6.8	8.1

DATE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT						
15...	K64	K54	38	1.20	9.4	4.00
NOV						
13...	>600	610	134	5.00	8.0	3.50
DEC						
17...	K13	520	72	4.60	9.1	3.90
JAN						
21...	360	>2000	97	7.40	9.0	3.70
FEB						
18...	K1800	1500	193	5.80	14	3.70
MAR						
18...	K170	K350	270	3.60	4.3	3.20
APR						
22...	K60	K55	312	0.810	16	3.90
MAY						
27...	130	500	357	0.230	1.6	3.20
JUN						
24...	520	670	51	0.130	1.3	4.70
JUL						
29...	190	340	23	0.170	1.5	4.30
AUG						
19...	100	200	8	0.060	1.2	3.70
SEP						
16...	320	410	62	0.590	2.3	4.70

E ESTIMATED
K BASED ON NON-IDEAL COLONY COUNT

07105920 LITTLE FOUNTAIN CREEK ABOVE KEATON RESERVOIR NEAR FORT CARSON, CO

LOCATION.--Lat 38°40'54", long 104°51'29", in NE¼SW¼ sec.2, T.16 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on right bank 100 ft above Keaton Reservoir, 0.7 mi upstream from State Highway 115, and 4.8 mi southwest of Fort Carson.

DRAINAGE AREA.--11.0 mi².

PERIOD OF RECORD.--May 1978 to current year. Water-quality data available, May 1978 to September 1982.

REVISED RECORDS.--WDR CO-80-1: 1979.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 6,430 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: May 7 to June 21. Records good except for estimated daily discharges, which are poor. No diversions upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years, 6.00 ft³/s; 4,350 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 513 ft³/s, June 3, 1981, gage height, 3.72 ft, from floodmark, from rating curve extended above 70 ft³/s, on basis of slope-area measurement of peak flow; no flow, Aug. 22-28, Sept. 8-24, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar. 7	2300	11	0.95	May 23	about0800	about 52	unknown
Apr. 11	2100	12	.96	June 9	about1715	about*56	unknown
Apr. 20	0245	42	1.71	June 30	2245	20	1.32
May 7	about2100	about 51	unknown	Aug. 28	1430	15	1.13

Minimum daily discharge, 0.80 ft³/s, Feb. 8, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	1.8	.93	1.4	1.2	1.2	2.7	35	16	18	2.2	6.0
2	1.5	1.8	1.2	1.4	1.2	1.2	2.7	34	14	16	2.8	5.4
3	1.7	2.4	1.4	1.4	1.1	1.2	3.3	33	13	14	2.4	4.8
4	2.0	2.0	.98	1.4	1.1	1.2	3.7	29	12	13	2.4	4.2
5	1.8	2.0	1.3	1.4	1.1	1.8	3.9	29	11	12	2.2	3.8
6	1.7	2.1	.86	1.4	1.1	5.0	4.0	40	10	10	2.0	3.6
7	1.6	2.1	.85	1.4	.86	9.1	4.4	49	9.0	9.3	2.1	3.4
8	1.6	1.6	1.1	1.4	.80	10	4.9	49	11	8.8	2.7	3.4
9	1.7	1.5	1.2	1.3	.81	9.7	6.2	47	29	8.3	4.4	3.2
10	1.7	2.1	1.2	1.3	.80	8.5	7.9	44	29	7.4	3.4	3.3
11	2.1	2.3	1.2	1.4	.84	6.4	9.9	41	25	6.9	3.7	3.1
12	1.9	2.0	1.2	1.4	.87	5.8	11	41	22	6.8	3.4	2.9
13	1.8	2.0	1.2	1.4	.87	5.6	10	41	20	6.7	3.5	2.7
14	1.9	2.0	1.2	1.4	.91	5.6	9.6	41	17	6.2	3.6	2.6
15	1.7	1.8	1.2	1.3	.93	5.3	11	41	16	5.8	3.0	2.3
16	1.6	1.2	1.2	1.3	.94	5.4	16	41	16	5.2	2.6	2.0
17	1.5	1.3	1.2	1.3	.97	5.0	23	38	14	5.3	2.3	2.4
18	1.4	1.1	1.2	1.3	1.2	5.1	30	34	13	5.4	1.9	1.9
19	1.3	1.1	1.3	1.4	1.1	6.0	34	31	12	4.6	1.9	1.6
20	1.8	1.1	1.3	1.4	1.1	6.6	34	27	11	3.9	1.8	1.5
21	2.1	.96	1.3	1.4	1.1	7.1	27	28	11	3.6	1.8	1.5
22	1.8	.99	1.3	1.4	1.1	6.7	24	31	9.5	3.7	4.0	1.5
23	2.0	.97	1.3	1.3	1.1	6.2	25	50	8.6	3.4	5.1	1.4
24	2.4	1.0	1.4	1.3	1.1	5.4	29	46	8.0	3.2	4.0	1.4
25	2.1	1.1	1.4	1.3	1.1	4.9	29	42	7.5	3.1	3.6	1.4
26	1.8	1.0	1.4	1.3	1.1	4.6	30	37	7.3	2.8	4.4	1.3
27	1.6	1.0	1.4	1.3	1.1	3.3	33	32	7.0	2.6	5.7	1.3
28	1.5	1.1	1.4	1.3	1.2	3.6	32	27	6.5	2.7	7.4	1.3
29	1.4	1.1	1.4	1.3	---	4.0	33	24	8.6	2.5	6.9	1.3
30	1.4	1.1	1.3	1.2	---	4.0	34	21	15	2.3	7.0	1.3
31	1.5	---	1.3	1.2	---	3.6	---	17	---	2.2	6.4	---
TOTAL	53.6	45.62	38.12	41.7	28.70	159.1	528.2	1120	409.0	205.7	110.6	77.8
MEAN	1.73	1.52	1.23	1.35	1.02	5.13	17.6	36.1	13.6	6.64	3.57	2.59
MAX	2.4	2.4	1.4	1.4	1.2	10	34	50	29	18	7.4	6.0
MIN	1.3	.96	.85	1.2	.80	1.2	2.7	17	6.5	2.2	1.8	1.3
AC-FT	106	90	76	83	57	316	1050	2220	811	408	219	154

CAL YR 1986 TOTAL 785.63 MEAN 2.15 MAX 12 MIN .85 AC-FT 1560
WTR YR 1987 TOTAL 2818.14 MEAN 7.72 MAX 50 MIN .80 AC-FT 5590

07105924 WOMACK DITCH NEAR FORT CARSON, CO

LOCATION.--Lat 38°40'52", long 104°51'20", in NW¼SE¼ sec.2, T.16 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on left side of diversion pipe, 300 ft downstream from Keaton Reservoir, 0.5 mi upstream from State Highway 115, and 4.7 mi southwest of Fort Carson.

PERIOD OF RECORD.--June 1978 to current year.

GAGE.--Water-stage recorder and Parshall flume Elevation of gage is 5,400 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good except those for winter period, which are fair. Gage is on controlled pipe diversion from Keaton Reservoir, which delivers appropriated water rights to Fort Carson and the City of Fountain. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years, 1.28 ft³/s; 927 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4.8 ft³/s, June 3, 4, 9-15, 1979; no flow, Mar. 21-24, Sept. 7, 8, 1980, Dec. 18-31, 1981, Jan. 8, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2.9 ft³/s, May 28, 31; minimum daily , 0.55 ft³/s, Jan. 8-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.3	1.3	.64	.77	.90	2.7	2.8	2.8	1.2	1.2	1.3
2	1.4	1.3	1.3	.64	.77	.90	2.6	2.8	2.8	1.2	1.2	1.3
3	1.4	1.3	1.3	.60	.76	.90	2.7	2.7	2.8	1.1	1.2	1.3
4	1.3	1.4	1.3	.60	.75	.90	2.7	2.7	2.8	1.1	1.2	1.3
5	1.4	1.3	1.3	.60	.75	.90	2.6	2.8	2.8	1.1	1.2	1.3
6	1.4	1.3	1.3	.60	.75	.90	2.6	2.8	2.0	1.2	1.2	1.3
7	1.4	1.3	1.3	.59	.75	.90	2.7	2.8	1.2	1.4	1.2	1.3
8	1.3	1.3	1.3	.55	.75	.90	2.7	2.8	1.2	1.4	1.1	1.3
9	1.3	1.3	1.3	.55	.75	.90	2.7	2.8	1.3	1.4	1.1	1.3
10	1.3	1.3	1.3	.55	.75	.90	2.7	2.8	1.3	1.4	1.1	1.3
11	1.3	1.3	1.3	.55	.75	.90	2.7	2.8	1.3	1.3	1.1	1.3
12	1.3	1.3	1.3	.55	.75	1.1	2.6	2.8	1.3	1.3	1.1	1.3
13	1.3	1.3	1.3	.63	.75	1.3	2.6	2.8	1.3	1.3	1.1	1.3
14	1.3	1.3	1.3	.81	.75	1.3	2.7	2.8	1.3	1.3	1.1	1.3
15	1.3	1.3	1.3	.81	.75	1.3	2.7	2.8	1.3	1.3	1.1	1.3
16	1.3	1.3	1.3	.79	.75	1.3	2.7	2.8	1.3	1.3	1.2	1.3
17	1.3	1.3	1.3	.80	.75	1.3	2.8	2.8	1.3	1.3	1.2	1.3
18	1.3	1.3	1.2	.81	.75	1.3	2.8	2.8	1.3	1.3	1.2	1.3
19	1.3	1.3	1.3	.81	.75	1.3	2.8	2.8	1.3	1.3	1.2	1.3
20	1.3	1.3	1.3	.81	.75	1.3	2.8	2.8	1.3	1.3	1.2	1.3
21	1.3	1.3	1.3	.81	.80	1.3	2.8	2.8	1.3	1.3	1.2	1.3
22	1.3	1.3	1.2	.81	.85	1.3	2.8	2.8	1.3	1.3	1.3	1.3
23	1.3	1.3	1.2	.81	.90	2.0	2.8	2.8	1.3	1.3	1.3	1.3
24	1.3	1.3	1.2	.81	.90	2.7	2.8	2.8	1.3	1.2	1.3	1.3
25	1.3	1.3	1.2	.81	.90	2.7	2.8	2.8	1.2	1.2	1.3	1.3
26	1.3	1.3	1.2	.77	.90	2.7	2.8	2.8	1.2	1.2	1.3	1.2
27	1.3	1.3	1.1	.77	.90	2.7	2.8	2.8	1.2	1.2	1.3	1.2
28	1.3	1.3	.79	.77	.90	2.7	2.8	2.9	1.2	1.2	1.3	1.3
29	1.3	1.3	.73	.77	---	2.7	2.8	2.8	1.2	1.2	1.3	1.3
30	1.3	1.3	.67	.77	---	2.6	2.8	2.8	1.2	1.2	1.3	1.3
31	1.3	---	.64	.77	---	2.6	---	2.9	---	1.2	1.3	---
TOTAL	40.9	39.1	37.13	21.96	22.10	47.40	81.9	86.8	46.4	39.0	37.4	38.8
MEAN	1.32	1.30	1.20	.71	.79	1.53	2.73	2.80	1.55	1.26	1.21	1.29
MAX	1.4	1.4	1.3	.81	.90	2.7	2.8	2.9	2.8	1.4	1.3	1.3
MIN	1.3	1.3	.64	.55	.75	.90	2.6	2.7	1.2	1.1	1.1	1.2
AC-FT	81	78	74	44	44	94	162	172	92	77	74	77

CAL YR 1986 TOTAL 477.57 MEAN 1.31 MAX 1.8 MIN .64 AC-FT 947
WTR YR 1987 TOTAL 538.89 MEAN 1.48 MAX 2.9 MIN .55 AC-FT 1070

07105928 LITTLE FOUNTAIN CREEK NEAR FORT CARSON, CO

LOCATION.--Lat 38°40'49", long 104°51'08", in SW¼SE¼ sec.2, T.16 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on right bank 0.3 mi downstream from Keaton Reservoir, 0.4 mi upstream from State Highway 115, 1.2 mi upstream from Deadman Canyon and 4.8 mi southwest of Fort Carson.

DRAINAGE AREA.--11.8 mi².

PERIOD OF RECORD.--Streamflow records, May 1978 to current year. Water-quality data available, May to September 1978.

REVISED RECORDS.--WDR CO-80-1: 1979.

GAGE.--Water-stage recorder. Elevation of gage is 6,360 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 24 to Jan. 22. Records good except for estimated daily discharges, which are poor. Womack Ditch diverts about 5.0 ft³/s from Keaton Reservoir upstream. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years, 4.93 ft³/s; 3,570 acre-ft per year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 224 ft³/s, Oct. 4, 1984, gage height, 5.04 ft, from rating curve extended above 80 ft³/s; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 53 ft³/s at 1830 June 9, gage height, 3.47 ft; no flow Sept. 26-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.27	.77	.20	.04	.12	.43	1.4	32	13	14	.65	3.0
2	.23	.66	.17	.04	.13	.54	1.4	32	11	12	1.2	2.7
3	.29	1.2	.17	.04	.13	.71	1.5	30	10	12	.85	2.4
4	.55	1.2	.22	.04	.15	1.2	2.3	26	9.0	10	.80	2.1
5	.35	1.1	.21	.04	.15	2.4	2.5	25	8.3	9.4	.67	1.8
6	.32	1.2	.23	.04	.15	4.2	2.6	38	8.0	8.1	.42	1.9
7	.37	1.3	.21	.04	.16	7.6	3.1	46	7.9	7.2	.51	2.0
8	.23	.94	.13	.05	.18	9.9	3.5	46	9.5	6.9	1.3	1.7
9	.27	.57	.15	.05	.21	8.4	4.5	44	28	6.3	2.3	1.6
10	.44	1.3	.12	.06	.24	6.9	6.1	41	28	5.6	2.1	1.5
11	.44	.92	.13	.08	.24	5.6	7.9	38	24	4.9	1.6	1.3
12	.44	1.2	.12	.12	.25	4.5	9.3	39	21	4.8	1.6	1.2
13	.30	.53	.11	.15	.26	4.0	8.2	38	19	4.5	1.7	1.0
14	.33	1.1	.09	.10	.36	4.0	7.6	38	16	4.0	1.6	.70
15	.29	.61	.07	.07	.37	3.9	9.1	38	15	3.7	1.1	.93
16	.23	.55	.06	.06	.29	4.2	14	38	15	3.3	.79	.74
17	.18	.53	.05	.06	.25	3.6	19	35	13	3.2	.61	.58
18	.14	.45	.04	.06	.22	3.6	26	31	12	3.4	.42	.55
19	.12	.40	.03	.06	.27	4.2	31	28	11	2.8	.31	.45
20	.20	.44	.02	.06	.27	5.0	30	24	10	2.5	.15	.37
21	.52	.38	.01	.08	.26	5.2	23	25	9.8	2.2	.10	.30
22	.35	.37	.01	.13	.24	5.0	20	28	8.7	2.0	1.7	.22
23	.52	.38	.01	.15	.24	4.3	20	48	8.0	1.8	2.8	.16
24	.87	.22	.01	.14	.25	3.4	24	43	7.4	1.6	1.9	.07
25	.66	.36	.01	.13	.25	2.8	24	39	6.9	1.5	1.6	.01
26	.56	.33	.01	.13	.41	2.5	25	34	6.6	1.3	2.5	.0
27	.54	.21	.01	.11	.37	2.0	29	29	6.5	1.1	4.4	.00
28	.49	.31	.03	.12	.39	1.5	29	24	5.9	1.1	4.5	.00
29	.46	.32	.04	.13	---	.93	30	21	8.0	1.1	4.4	.00
30	.42	.30	.04	.13	---	1.3	31	18	13	.80	3.8	.00
31	.40	---	.04	.13	---	1.3	---	14	---	.68	3.4	---
TOTAL	11.78	20.15	2.75	2.64	6.81	115.11	446.0	1030	369.5	143.78	51.78	29.28
MEAN	.38	.67	.09	.09	.24	3.71	14.9	33.2	12.3	4.64	1.67	.98
MAX	.87	1.3	.23	.15	.41	9.9	31	48	28	14	4.5	3.0
MIN	.12	.21	.01	.04	.12	.43	1.4	14	5.9	.68	.10	.00
AC-FT	23	40	5.5	5.2	14	228	885	2040	733	285	103	58

CAL YR 1986 TOTAL 421.03 MEAN 1.15 MAX 9.1 MIN .01 AC-FT 835
WTR YR 1987 TOTAL 2229.58 MEAN 6.11 MAX 48 MIN .00 AC-FT 4420

07105940 LITTLE FOUNTAIN CREEK NEAR FOUNTAIN, CO

LOCATION.--Lat 38°38'33", long 104°44'49", in NE¼SW¼ sec.23, T.16 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on Fort Carson Military Reservation, on right bank 300 ft downstream from Military Road No. 1, 0.4 mi upstream from mouth of Rock Creek, 3.8 mi southwest of Fountain.

DRAINAGE AREA.--26.9 mi².

PERIOD OF RECORD.--May 1978 to current year.

REVISED RECORDS.--WDR CO-85-1: 1984 (M).

GAGE.--Water-stage recorder. Elevation of gage is 5,560 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 9 to Jan. 29, and May 24 to July 7. Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation, recreation, and municipal use, amount unknown. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years, 5.46 ft³/s; 3,960 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,290 ft³/s, Aug. 23, 1986, gage height, 8.47 ft, from rating curve extended above 100 ft³/s, on basis of computation of peak flow through a culvert at a gage height of 8.22 ft; no flow many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 60 ft³/s, time unknown, May 24, gage height, unknown; minimum daily, 0.17 ft³/s, Sept. 25-27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	.91	.50	.62	1.1	1.3	1.8	18	6.2	10	.97	2.8
2	1.3	.75	.42	.66	.78	1.6	1.9	19	4.8	20	1.7	2.1
3	1.1	.58	.43	.70	.65	1.3	1.8	19	3.4	15	1.2	1.8
4	1.1	.50	.43	.75	.60	1.9	2.1	16	3.2	11	1.0	1.3
5	1.1	.54	.46	.58	.52	3.6	2.8	15	3.0	10	.97	.94
6	1.1	.50	.45	.49	.50	2.3	3.0	20	2.9	9.0	.83	.95
7	.98	.50	.47	.35	.54	1.4	3.1	24	2.9	8.2	2.0	.95
8	.95	.48	.44	.32	.54	3.0	3.3	24	6.0	7.5	4.1	.92
9	.95	.49	.40	.30	.65	4.0	4.2	22	15	7.4	3.7	.81
10	.96	.48	.35	.28	.60	3.8	5.0	21	35	6.3	4.1	.50
11	.89	.52	.34	.53	.60	3.1	6.4	18	25	5.9	2.4	.42
12	.83	.40	.35	.60	.60	2.6	8.1	18	20	5.7	1.3	.37
13	.88	.44	.37	.55	.60	2.3	8.3	18	15	5.3	1.7	.30
14	.91	.47	.45	.42	.69	2.3	7.0	18	11	4.6	1.8	.21
15	.83	.47	.43	.37	.73	2.1	6.9	17	8.4	4.0	.91	.23
16	.80	.39	.45	.34	.62	3.3	8.6	17	8.0	3.8	.56	.33
17	.66	.47	.44	.40	.60	5.0	12	17	7.9	7.3	.44	.26
18	.72	.41	.40	.37	.55	12	16	15	7.0	5.0	.40	.24
19	.72	.40	.45	.35	.72	14	19	14	5.6	3.8	.41	.24
20	.72	.37	.48	.34	.82	8.5	19	12	4.5	3.1	.32	.23
21	.72	.40	.50	.42	.87	6.9	16	13	4.0	2.4	.34	.19
22	.72	.38	.60	.48	.86	6.6	14	14	3.4	1.9	4.0	.19
23	.78	.37	.58	.52	.86	6.0	13	22	3.0	1.7	3.5	.19
24	.81	.36	.56	.56	1.1	4.8	14	60	2.7	1.6	1.9	.18
25	.72	.35	.60	.60	.81	4.1	15	35	2.6	1.5	6.9	.17
26	.72	.30	.52	.64	2.4	3.9	16	20	2.5	1.4	10	.17
27	.72	.34	.66	.75	4.5	3.6	17	16	2.4	1.4	4.8	.17
28	.72	.37	.69	2.0	1.9	4.9	17	14	2.4	1.2	5.9	.20
29	.63	.37	.72	1.4	---	4.1	18	15	2.3	1.2	5.1	.21
30	.60	.41	.68	1.0	---	4.7	18	12	6.0	1.1	4.2	.20
31	.51	---	.65	1.7	---	2.2	---	9.0	---	1.0	3.4	---
TOTAL	26.45	13.72	15.27	19.39	26.31	131.2	298.3	592.0	226.1	169.3	80.85	17.77
MEAN	.85	.46	.49	.63	.94	4.23	9.94	19.1	7.54	5.46	2.61	.59
MAX	1.3	.91	.72	2.0	4.5	14	19	60	35	20	10	2.8
MIN	.51	.30	.34	.28	.50	1.3	1.8	9.0	2.3	1.0	.32	.17
AC-FT	52	27	30	38	52	260	592	1170	448	336	160	35

CAL YR 1986 TOTAL 581.98 MEAN 1.59 MAX 122 MIN .03 AC-FT 1150
WTR YR 1987 TOTAL 1616.66 MEAN 4.43 MAX 60 MIN .17 AC-FT 3210

07105945 ROCK CREEK ABOVE FORT CARSON RESERVATION, CO

LOCATION.--Lat 38°42'27", long 104°50'46", in NW¼NW¼ sec. 36, T. 15 S., R. 67 W., El Paso County, Hydrologic Unit 11020003, on right bank 20 ft upstream from county road bridge, 0.6 mi northwest of Rock Creek Park, 1.2 mi upstream from State Highway 115, and 3.2 mi southwest of Ft. Carson.

DRAINAGE AREA.--6.79 mi^2.

PERIOD OF RECORD.--Streamflow records, May 1978 to current year. Water-quality data available, May to September 1978.

REVISED RECORDS.--WRD CO-85-1: 1982.

GAGE.--Water-stage recorder. Elevation of gage is 6,390 ft above National Geodetic Vertical Datum of 1929 from topographic map.

REMARKS.--Estimated daily discharges: Nov. 7-13, Jan. 16-24, Feb. 26-27 and Aug. 27 to Sept 28. Records good except those for periods of estimated daily discharges and those above 60 ft^3/s, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years, 3.10 ft^3/s; 2,250 acre-ft per year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 276 ft^3/s, July 28 1982, gage height, 4.73 ft, from rating curve extended above 60 ft^3/s; no flow many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 19	1830	25	2.35	May 23	0445	*43	*2.47
Apr. 27	1200	18	2.28	June 9	1815	23	2.39
May 3	0015	24	2.33	June 30	0230	27	2.36
May 7	1845	18	2.27				

Minimum daily discharge, 0.22 ft^3/s, Oct. 17-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.31	.80	.68	.44	.87	.85	1.4	17	6.2	19	.53	2.3
2	.27	.68	.69	.45	.89	.97	1.5	16	5.4	14	.68	2.0
3	.31	.96	.66	.65	.93	1.1	1.5	17	5.2	11	.67	1.8
4	.43	.97	.69	.78	.94	1.3	1.9	13	4.6	9.0	.69	1.7
5	.38	.85	.68	.80	.83	1.9	2.1	13	3.5	7.6	.60	1.5
6	.35	.77	.67	.73	.81	3.2	2.2	17	3.0	6.2	.50	1.4
7	.32	.72	.69	.70	.81	4.2	2.6	18	2.9	5.3	.65	1.4
8	.28	.68	.65	.65	.83	4.7	2.8	18	4.1	5.0	.99	1.3
9	.30	.66	.60	.63	.83	3.7	3.2	16	10	4.3	1.2	1.2
10	.31	.65	.71	.65	.84	2.9	3.9	15	15	3.5	.98	1.2
11	.43	.64	.70	.64	.79	2.6	5.2	13	9.8	3.0	.86	1.1
12	.39	.62	.70	.58	.81	2.3	6.2	12	7.0	3.0	.88	1.0
13	.34	.60	.66	.57	.81	2.3	5.1	9.9	5.4	2.9	.89	.90
14	.32	.56	.66	.57	.86	2.3	4.6	8.9	4.8	2.5	.91	.80
15	.29	.51	.68	.63	.88	2.3	5.7	7.6	5.3	2.2	.63	.70
16	.26	.70	.70	.60	.83	2.5	8.8	6.8	4.7	2.0	.49	.65
17	.22	.75	.66	.53	.75	2.3	13	5.8	3.5	1.9	.42	.60
18	.22	.75	.68	.50	.72	2.4	19	5.2	3.0	1.8	.34	.55
19	.23	.75	.70	.50	.68	3.2	22	5.7	2.8	1.5	.31	.50
20	.46	.75	.70	.50	.76	3.7	19	5.8	2.5	1.3	.25	.45
21	.73	.75	.67	.54	.78	3.5	13	8.4	2.7	1.2	.25	.43
22	.62	.77	.66	.60	.76	3.1	10	15	2.1	1.1	1.4	.42
23	.70	.80	.63	.70	.70	2.7	11	28	2.0	1.0	1.9	.40
24	.80	.78	.62	.80	.72	2.4	14	23	1.9	.94	1.2	.40
25	.67	.87	.59	.83	.70	2.1	15	20	1.9	.86	1.3	.39
26	.61	.86	.52	.78	.73	2.0	16	17	1.8	.81	1.8	.39
27	.57	.78	.50	.80	.75	1.7	18	15	1.7	.73	2.5	.39
28	.54	.76	.63	.90	.79	1.7	18	12	1.5	.73	3.5	.39
29	.52	.73	.66	.92	---	2.3	17	10	4.3	.77	3.0	.39
30	.51	.74	.69	.84	---	1.9	17	8.6	21	.62	3.0	.40
31	.51	---	.62	.84	---	1.3	---	7.2	---	.56	2.6	---
TOTAL	13.20	22.21	20.35	20.65	22.40	75.42	280.7	404.9	149.6	116.32	35.92	27.05
MEAN	.43	.74	.66	.67	.80	2.43	9.36	13.1	4.99	3.75	1.16	.90
MAX	.80	.97	.71	.92	.94	4.7	22	28	21	19	3.5	2.3
MIN	.22	.51	.50	.44	.68	.85	1.4	5.2	1.5	.56	.25	.39
AC-FT	26	44	40	41	44	150	557	803	297	231	71	54

CAL YR 1986 TOTAL 245.07 MEAN .67 MAX 2.1 MIN .10 AC-FT 486
WTR YR 1987 TOTAL 1188.72 MEAN 3.26 MAX 28 MIN .22 AC-FT 2360

07105950 ROCK CREEK NEAR FORT CARSON, CO

LOCATION.--Lat 38°41'49", long 104°49'39", in SW¼SW¼ sec.31, T.15 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on left bank at Fort Carson Girl Scout Camp, 0.2 mi downstream from bridge on State Highway 115 and 2.9 mi southwest of Fort Carson.

DRAINAGE AREA.--7.79 mi².

PERIOD OF RECORD.--Streamflow records, May 1978 to current year. Water quality data available, May 1978 to September 1981.

GAGE.--Water-stage recorder. Elevation of gage is 6,150 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Mar. 1-9 and Sept. 23-29. Records good except those for estimated daily discharges and discharges above 50 ft³/s, which are poor. Some diversions upstream from station for irrigation and other uses, amounts unknown. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years, 2.35 ft³/s; 1,700 acre-ft per year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 353 ft³/s, July 28, 1982, gage height, 6.09 ft, from floodmark, from rating curve extended above 50 ft³/s; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 34 ft³/s at 0600 May 23 , gage height, 4.15 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.36	13	5.3	27	.04	.11
2	.00	.00	.00	.00	.00	.00	.35	12	4.3	22	.03	.13
3	.00	.00	.00	.00	.00	.10	.41	12	3.8	13	.02	.15
4	.00	.00	.00	.00	.00	.20	.61	9.6	3.3	9.9	.01	.15
5	.00	.00	.00	.00	.00	.40	.81	9.0	2.9	8.1	.0	.14
6	.00	.00	.00	.00	.00	.90	.96	12	1.9	6.1	.00	.13
7	.00	.00	.00	.00	.00	2.0	1.6	14	1.8	5.1	.00	.12
8	.00	.00	.00	.00	.00	3.0	1.8	14	1.7	4.5	.00	.11
9	.00	.00	.00	.00	.00	2.0	2.9	13	6.0	3.9	.00	.11
10	.00	.00	.00	.00	.00	1.1	4.3	12	10	2.8	.00	.08
11	.00	.00	.00	.00	.00	.33	6.3	11	7.5	2.1	.00	.06
12	.00	.00	.00	.00	.00	.17	8.8	9.9	6.5	1.4	.00	.06
13	.00	.00	.00	.00	.00	.21	7.1	7.9	4.9	1.2	.00	.04
14	.00	.00	.00	.00	.00	.26	6.0	6.7	3.9	.97	.00	.03
15	.00	.00	.00	.00	.00	.26	7.5	5.7	4.1	.93	.00	.02
16	.00	.00	.00	.00	.00	.25	12	5.1	4.4	.83	.00	.01
17	.00	.00	.00	.00	.00	.26	16	4.7	3.1	.72	.00	.00
18	.00	.00	.00	.00	.00	.36	17	4.3	2.4	.56	.00	.00
19	.00	.00	.00	.00	.00	.79	18	4.6	1.9	.47	.00	.00
20	.00	.00	.00	.00	.00	1.2	16	5.2	1.7	.41	.00	.00
21	.00	.00	.00	.00	.00	1.1	12	7.0	2.3	.35	.00	.00
22	.00	.00	.00	.00	.00	.96	9.8	14	1.4	.30	.00	.00
23	.00	.00	.00	.00	.00	.82	9.5	32	.94	.27	.00	.00
24	.00	.00	.00	.00	.00	.76	10	29	.58	.23	.00	.00
25	.00	.00	.00	.00	.00	.66	11	25	.49	.20	.00	.00
26	.00	.00	.00	.00	.00	.64	11	21	.59	.17	.00	.00
27	.00	.00	.00	.00	.00	.59	12	17	.56	.15	.00	.00
28	.00	.00	.00	.00	.00	.55	12	14	.52	.12	.00	.00
29	.00	.00	.00	.00	---	.45	12	11	1.3	.10	.03	.00
30	.00	.00	.00	.00	---	.41	12	8.2	19	.08	.06	.00
31	.00	---	.00	.00	---	.38	---	6.3	---	.06	.09	---
TOTAL	.00	.00	.00	.00	.00	21.11	240.10	370.2	109.08	114.02	.28	1.45
MEAN	.00	.00	.00	.00	.00	.68	8.00	11.9	3.64	3.68	.01	.05
MAX	.00	.00	.00	.00	.00	3.0	18	32	19	27	.09	.15
MIN	.00	.00	.00	.00	.00	.00	.35	4.3	.49	.06	.00	.00
AC-FT	.0	.0	.0	.0	.0	42	476	734	216	226	.6	2.9

CAL YR 1986 TOTAL 28.88 MEAN .08 MAX 1.5 MIN .00 AC-FT 57
WTR YR 1987 TOTAL 856.24 MEAN 2.35 MAX 32 MIN .00 AC-FT 1700

07105960 ROCK CREEK NEAR FOUNTAIN, CO

LOCATION.--Lat 38°39'16", long 104°44'48", in NE¼SW¼ sec.14, T.16 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on left bank at edge of Military Road No. 1 on Fort Carson Military Reservation, 1.1 mi upstream from mouth at Little Fountain Creek and 3.2 mi southwest of Fountain.

DRAINAGE AREA.--16.9 mi².

PERIOD OF RECORD.--Streamflow records, May 1978 to current year. Water-quality data available, May 1978 to September 1979.

GAGE.--Water-stage recorder. Elevation of gage is 5,600 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 19 to Feb. 3, and June 4 to July 12. Records good except those above 50 ft³/s, and those for periods of estimated daily discharge, which are poor. Diversions upstream from station for irrigation and recreation, amounts unknown. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years, 3.39 ft³/s; 2,460 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 176 ft³/s, Aug. 2, 1986, gage height, 4.81 ft, from rating curve extended above 50 ft³/s; minimum daily, 0.01 ft³/s, Aug. 31 to Sept. 12, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 84 ft³/s at 2145 May 23, gage height, 3.50 ft, from rating curve extended above 50 ft³/s; minimum daily, 0.59 ft³/s, Aug. 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.87	.96	.84	.78	.76	.83	1.4	31	46	30	.65	.77
2	.87	.92	.82	.82	.78	.90	1.3	31	44	70	.64	.78
3	.83	.92	.82	.82	.80	.99	1.3	34	44	40	.66	.76
4	.87	.95	.82	.82	.81	1.1	1.3	33	38	25	.67	.74
5	.86	.95	.87	.82	.78	1.2	1.3	31	35	15	.63	.78
6	.82	.92	.87	.82	.78	1.4	1.3	36	31	9.0	.59	.81
7	.82	.92	.87	.82	.76	1.4	1.3	38	20	7.8	.61	.86
8	.82	.92	.83	.82	.74	1.4	1.3	40	25	6.8	.62	.95
9	.85	.92	.82	.81	.74	1.3	1.3	41	24	5.5	.68	.92
10	.87	.92	.82	.78	.74	1.3	1.4	40	35	5.0	.68	.93
11	.82	.90	.82	.78	.74	1.3	1.3	37	50	4.5	.68	.94
12	.82	.92	.87	.77	.74	1.3	2.4	34	42	4.0	.68	1.0
13	.85	.92	.87	.75	.74	1.2	3.8	33	35	3.4	.70	1.0
14	.87	.92	.87	.74	.75	1.2	3.9	30	30	2.6	.68	.92
15	.87	.92	.87	.76	.78	1.2	3.8	25	26	2.3	.68	1.0
16	.87	.95	.87	.77	.78	1.3	5.5	24	28	1.9	.68	1.0
17	.88	.92	.87	.74	.77	1.4	11	21	30	1.4	.68	.97
18	.87	.87	.87	.74	.74	1.5	15	18	26	1.2	.68	1.0
19	.87	.87	.87	.74	.74	1.7	23	18	21	1.1	.69	1.0
20	.88	.91	.87	.74	.74	1.8	27	18	18	1.0	.68	1.0
21	.92	.92	.82	.74	.70	1.8	25	21	15	.96	.69	1.1
22	.92	.92	.82	.74	.70	1.8	24	33	12	.92	.72	1.0
23	.96	.88	.82	.74	.70	1.7	24	72	10	.84	.72	1.0
24	.98	.88	.82	.74	.70	1.7	26	84	8.5	.83	.71	.99
25	.95	.90	.82	.74	.68	1.7	28	79	7.0	.78	.76	1.0
26	.92	.87	.87	.76	.71	1.6	29	67	6.0	.76	.95	1.0
27	.92	.87	.87	.78	.75	1.6	32	50	5.0	.75	.89	1.0
28	.92	.86	.87	.80	.81	1.5	33	52	4.3	.71	.90	1.1
29	.92	.85	.82	.78	---	1.5	31	54	3.4	.70	.88	1.1
30	.92	.87	.78	.74	---	1.4	29	51	11	.66	.79	1.0
31	.92	---	.78	.74	---	1.4	---	49	---	.65	.78	---
TOTAL	27.33	27.22	26.12	23.94	20.96	43.42	390.9	1225	730.2	246.06	22.05	28.42
MEAN	.88	.91	.84	.77	.75	1.40	13.0	39.5	24.3	7.94	.71	.95
MAX	.98	.96	.87	.82	.81	1.8	33	84	50	70	.95	1.1
MIN	.82	.85	.78	.74	.68	.83	1.3	18	3.4	.65	.59	.74
AC-FT	54	54	52	47	42	86	775	2430	1450	488	44	56

CAL YR 1986 TOTAL 386.60 MEAN 1.06 MAX 23 MIN .38 AC-FT 767
WTR YR 1987 TOTAL 2811.62 MEAN 7.70 MAX 84 MIN .59 AC-FT 5560

07106000 FOUNTAIN CREEK NEAR FOUNTAIN, CO

LOCATION (REVISED).--Lat 38°36'14", long 104°40'20", in SW¼NE¼ Sec 4, T.17 S., R.65 W., El Paso County, Hydrologic Unit 11020003, on right bank, 900 ft upstream from Denver & Rio Grande Railroad bridge, 0.70 mi downstream from Little Fountain Creek and 5.5 mi south of Fountain.

DRAINAGE AREA.--681 mi^2.

PERIOD OF RECORD.--September 1938 to March 1, 1940, monthly records only, March 2, 1940 to September 1954, at site 200 ft downstream at different datum, July 2, 1985 to Sept. 2, 1987 at site 500 ft downstream at different datum; Sept. 3-30, 1987.

GAGE.--Water-stage recorder. Elevation of gage is 5,355 ft above National Geodetic Vertical Datum of 1929, from topographic map. Sept. 18, 1938 to Mar. 1, 1940, nonrecording gage, and Mar. 2, 1940 to Sept. 30, 1954, recording gage, both at different datum and at site 200 ft downstream. July 2, 1985 to Sept. 2, 1987, recording gage at site 500 ft downstream, at different datum.

REMARKS.--Estimated daily discharges: Jan. 17-21, and Feb. 14-15. Records good except those above about 500 ft^3/s, which are fair, and for estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation, municipal use, and return flows from irrigation and sewage effluent discharges. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--18 years (water years 1938-54, 1985-87) 63.2 ft^3/s, 45,790 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,100 ft^3/s, May 28, 1940, gage height, 9.19 ft, at different datum, from rating curve extended above 3,000 ft^3/s, on basis of slope-area measurement of peak flow; no flow Sept. 24, 30, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 14.4 ft, at different datum, May 30, 1935, but was probably exceeded by the flood of June 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,240 ft^3/s at 2015, June 8, gage height, 9.32 ft, from rating curve extended above 1,100 ft^3/s, on the basis of two slope-area measurements of peak flow; minimum daily, 15 ft^3/s, Aug. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	452	111	112	145	193	115	140	218	475	15	109
2	43	205	133	120	158	280	125	199	153	357	57	142
3	40	150	101	124	140	303	134	505	114	339	68	75
4	149	153	106	128	140	273	147	274	126	304	60	80
5	64	116	105	136	128	280	191	209	107	309	41	90
6	72	101	122	126	123	264	149	268	121	234	48	212
7	41	96	124	119	124	260	142	480	119	160	46	98
8	39	98	109	120	126	252	145	417	745	150	68	82
9	27	89	103	106	119	177	153	366	1170	206	84	75
10	35	96	78	97	116	165	151	324	511	129	237	69
11	52	94	89	83	116	157	168	323	314	75	70	105
12	38	116	105	98	117	120	231	296	267	119	100	129
13	48	131	101	113	114	127	196	321	255	143	94	63
14	62	159	112	92	125	132	173	381	256	99	127	61
15	37	147	141	71	130	143	177	266	245	51	69	128
16	47	143	136	59	133	433	136	272	250	114	64	73
17	46	135	139	60	136	372	186	240	190	57	66	76
18	50	106	129	65	139	345	226	198	188	82	63	94
19	49	91	125	62	186	375	277	293	194	44	60	81
20	204	97	116	60	187	263	291	300	205	42	63	80
21	236	86	112	68	171	162	263	536	276	39	63	89
22	94	92	110	79	155	164	208	493	207	23	446	82
23	110	92	109	94	139	134	194	466	176	42	298	83
24	114	95	117	107	126	118	226	934	158	62	119	83
25	102	104	106	161	113	97	230	617	195	41	213	86
26	104	97	105	190	118	94	233	416	208	49	471	86
27	101	102	111	195	71	97	198	343	146	42	637	103
28	100	99	116	205	118	83	200	260	123	24	235	126
29	79	101	118	189	---	85	188	210	917	21	236	82
30	98	113	134	140	---	94	129	223	760	20	130	77
31	107	---	121	151	---	122	---	257	---	18	125	---
TOTAL	2434	3746	3546	3530	3713	6164	5632	10829	8914	3870	4473	2819
MEAN	78.5	125	114	114	133	199	188	349	297	125	144	94.0
MAX	236	452	141	205	187	433	291	934	1170	475	637	212
MIN	27	86	78	59	71	83	115	140	107	18	15	61
AC-FT	4830	7430	7030	7000	7360	12230	11170	21480	17680	7680	8870	5590

CAL YR 1986 TOTAL 36492 MEAN 100 MAX 703 MIN 17 AC-FT 72380
WTR YR 1987 TOTAL 59670 MEAN 163 MAX 1170 MIN 15 AC-FT 118400

07106300 FOUNTAIN CREEK NEAR PINON, CO

LOCATION.--Lat 38°26'50", long 104°35'28", in NE¼NE¼ sec.31, T.18 S., R.64 W., Pueblo County, Hydrologic Unit 11020002, near left bank on downstream side of county road bridge, 1.2 mi northeast of Pinon, and 3.2 mi upstream from Steele Hollow Creek.

DRAINAGE AREA.--849 mi^2.

PERIOD OF RECORD.--April 1973 to current year.

REVISED RECORDS.--WDR CO-80-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,005 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Apr. 23, 1976, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 1-4, 6-[illegible], 10, Dec. 10, 12-13, Jan. 17-24 and Feb. 21-22. Records good except for periods of estimated daily discharge and discharges above about 2,500 ft^3/s, which are poor. Natural flow of stream affected by storage reservoirs, power developments, transbasin and transmountain diversions municipal use, diversions upstream from station for irrigation of about 10,000 acres and municipal use, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--14 years, 101 ft^3/s; 73,170 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,200 ft^3/s, May 8, 1980, gage height, 7.05 ft, from rating curve extended above 7,300 ft^3/s; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,780 ft^3/s at 0215 June 9, gage height, 4.60 ft; minimum daily, 0.24 ft^3/s, Aug. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	205	95	85	107	152	131	114	142	334	.24	99
2	29	140	123	95	112	189	138	151	111	220	1.1	79
3	27	81	105	99	104	208	142	348	99	190	6.8	57
4	70	93	104	102	102	219	139	274	87	166	12	67
5	45	68	95	97	100	210	162	197	77	177	3.8	70
6	48	62	109	96	104	203	148	209	74	127	3.5	145
7	40	61	109	94	107	192	126	386	73	99	1.4	105
8	36	80	120	96	109	187	135	410	181	79	14	83
9	26	77	103	90	104	163	135	358	1110	128	46	52
10	23	82	100	94	111	129	132	293	581	71	140	40
11	34	83	102	85	117	146	142	237	270	23	29	76
12	30	86	110	87	108	114	166	320	238	29	35	91
13	30	95	115	100	102	121	186	329	225	83	12	56
14	36	107	125	88	109	125	147	283	214	36	55	74
15	38	92	140	82	161	124	147	383	191	21	16	121
16	28	87	118	75	116	251	128	189	206	45	6.2	61
17	27	93	107	70	123	380	124	301	145	28	4.7	46
18	31	77	99	80	112	245	144	188	124	53	1.9	57
19	28	77	86	84	146	307	172	179	127	35	2.2	42
20	69	79	88	80	126	274	187	325	129	15	1.7	49
21	115	70	85	85	110	163	184	364	192	5.8	.88	64
22	57	82	82	80	120	167	153	445	143	3.5	182	57
23	59	85	81	90	125	158	138	274	114	2.6	336	62
24	107	87	81	100	110	151	173	540	179	20	103	69
25	85	91	78	125	107	139	179	354	98	20	120	72
26	80	83	74	145	105	135	185	220	167	16	331	66
27	72	85	84	152	88	130	162	186	89	19	560	63
28	82	93	87	145	114	117	147	164	77	4.7	196	92
29	67	89	84	141	---	117	160	142	567	2.3	200	76
30	68	98	89	96	---	120	119	140	646	1.2	117	47
31	74	---	95	105	---	144	---	161	---	.36	116	---
TOTAL	1591	2688	3073	3043	3159	5480	4531	8464	6676	2054.46	2654.42	2138
MEAN	51.3	89.6	99.1	98.2	113	177	151	273	223	66.3	85.6	71.3
MAX	115	205	140	152	161	380	187	540	1110	334	560	145
MIN	23	61	74	70	88	114	119	114	73	.36	.24	40
AC-FT	3160	5330	6100	6040	6270	10870	8990	16790	13240	4080	5270	4240

CAL YR 1986 TOTAL 29967.40 MEAN 82.1 MAX 779 MIN 2.0 AC-FT 59440
WTR YR 1987 TOTAL 45551.88 MEAN 125 MAX 1110 MIN .24 AC-FT 90350

07106500 FOUNTAIN CREEK AT PUEBLO, CO

LOCATION.--Lat 38°17'16", long 104°36'02", in SE¼SW¼ sec.19, T.20 S., R.64 W., Pueblo County, Hydrologic Unit 11020003, on left bank at upstream side of bridge on U.S. Highway 50 at Pueblo and 2.6 mi upstream from mouth.

DRAINAGE AREA.--926 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1922 to September 1925, October 1940 to September 1965, February 1971 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WDR CO-79-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,705 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1711 or 1731 for history of changes prior to Oct. 1, 1940, and WSP 1921 for changes prior to Sept. 30, 1965. Feb. 1, 1971, to Sept. 30, 1976, water-stage recorder at site 1.4 mi upstream at datum 4,725.30 ft, National Geodetic Vertical Datum of 1929 (unadjusted).

REMARKS.--Estimated daily discharges: Dec. 10-11, Jan. 16-24, Feb. 19-22, 26, and July 16. Records good except those for periods of estimated daily discharge, which are poor. Natural flow of stream affected by storage reservoirs, power developments, transbasin and transmountain diversions for municipal use, diversions for irrigation of about 14,000 acres upstream from station and municipal use, and return flow from irrigated areas.

AVERAGE DISCHARGE.--44 years (water years 1923-25, 1941-65, 1972-87), 71.9 ft^3/s; 52,090 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,000 ft^3/s, June 17, 1965, gage height, 19.0 ft, from floodmarks, site and datum then in use, from rating curve extended above 400 ft^3/s, on basis of contracted-opening measurement of peak flow; no flow at times many years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1903, that of June 17, 1965. Flood of June 4, 1921, reached a discharge of 34,000 ft^3/s, by slope-area measurement. Flood of May 30, 1935, reached a discharge of 35,000 ft^3/s, by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,600 ft^3/s at 0430 June 9, gage height, 5.24 ft; minimum daily, 1.0 ft^3/s, Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	149	114	92	148	89	132	107	190	313	2.5	103
2	28	222	134	82	140	140	147	117	175	275	2.8	98
3	23	95	110	88	124	256	150	276	150	243	2.2	88
4	37	92	100	106	111	335	151	323	138	251	2.5	68
5	69	99	98	117	114	317	163	225	123	268	4.0	68
6	62	89	108	126	126	356	146	226	105	231	1.6	118
7	45	97	117	111	133	329	131	344	92	171	1.0	104
8	35	116	132	121	140	295	140	469	92	152	2.8	170
9	30	125	116	123	127	240	141	413	1110	145	8.3	93
10	28	116	100	109	126	162	141	352	771	109	69	86
11	34	132	105	104	106	174	142	317	326	69	51	102
12	35	118	112	110	116	125	154	337	338	58	31	90
13	29	127	93	125	102	126	175	378	201	71	33	86
14	31	146	94	124	118	123	143	358	207	53	53	77
15	37	169	94	117	161	128	133	493	206	42	43	76
16	39	175	96	80	107	173	143	314	214	35	24	85
17	32	167	101	70	116	407	140	368	175	35	19	71
18	33	149	102	75	100	250	150	248	139	37	16	71
19	33	142	100	86	95	286	171	215	131	21	14	67
20	43	145	89	80	92	282	183	410	137	16	9.5	65
21	117	123	88	80	90	144	190	481	172	13	8.3	71
22	100	122	84	80	100	128	170	558	159	9.5	78	69
23	72	126	91	85	117	117	154	294	110	8.3	383	64
24	97	114	94	100	102	112	162	611	178	9.5	129	58
25	94	122	91	128	83	106	173	658	112	12	96	55
26	101	112	86	199	90	105	178	335	158	8.8	239	53
27	91	119	91	246	80	108	164	204	130	9.5	731	52
28	95	133	103	214	74	96	154	198	97	8.3	150	64
29	110	135	109	245	---	84	156	180	444	5.4	150	57
30	96	123	96	181	---	99	134	186	838	3.2	110	52
31	84	---	92	136	---	111	---	190	---	2.2	115	---
TOTAL	1791	3899	3140	3740	3138	5803	4611	10185	7418	2684.7	2579.5	2381
MEAN	57.8	130	101	121	112	187	154	329	247	86.6	83.2	79.4
MAX	117	222	134	246	161	407	190	658	1110	313	731	170
MIN	23	89	84	70	74	84	131	107	92	2.2	1.0	52
AC-FT	3550	7730	6230	7420	6220	11510	9150	20200	14710	5330	5120	4720

CAL YR 1986 TOTAL 31208.4 MEAN 85.5 MAX 792 MIN 3.1 AC-FT 61900
WTR YR 1987 TOTAL 51370.2 MEAN 141 MAX 1110 MIN 1.0 AC-FT 101900

ARKANSAS RIVER BASIN

07106500 FOUNTAIN CREEK AT PUEBLO, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1981 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1985 to current year.
WATER TEMPERATURE: December 1985 to current year.

INSTRUMENTATION.--Water-quality monitor since December 1985.

REMARKS.--There was no specific conductance record Nov. 6-11, Jan. 23-24 and June 9-10. Daily field readings were used July 17 to Aug. 22 when probes wre isolated from main flow. There was no temperature record Nov. 6-11, July 17 to Aug. 9 and Aug. 11-22. Daily maximum and minimum specific conductance available in district office.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 2,120 microsiemens June 18, 1986; minimum, 440 microsiemens June 5 and Sept. 22, 1986.
WATER TEMPERATURE: Maximum, 33.0°C Aug. 5, 1986 and July 30, 1987; minimum, 0.0°C many days during the winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,980 microsiemens, Aug. 3; minimum, 490 microsiemens May 24.
WATER TEMPERATURE: Maximum, 33.0°C July 30, minimum, 0.0°C many days during winter.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)
OCT							
15...	0930	37	1480	8.3	8.0	12.0	E3.8
NOV							
13...	0900	122	1410	8.3	0.5	13.9	E5.6
DEC							
17...	1000	98	1210	8.2	1.0	11.8	E11
JAN							
21...	0900	E80	1460	8.2	0.0	15.2	13
FEB							
18...	0900	92	1210	8.1	2.5	11.2	8.0
MAR							
18...	0915	295	1020	8.2	5.5	11.4	23
APR							
22...	1045	170	920	8.3	11.0	10.2	E5.7
MAY							
27...	0945	190	841	8.3	13.0	9.6	E4.2
JUN							
24...	0900	305	782	8.2	16.0	8.0	19
JUL							
29...	0930	E5.4	1630	8.4	23.0	8.5	2.0
AUG							
19...	1330	14	1650	8.4	30.0	6.2	1.0
SEP							
16...	0900	85	1230	8.4	13.0	9.0	4.2

DATE	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)
OCT						
15...	230	210	143	0.06	3.1	4.90
NOV						
13...	K56	240	212	0.63	1.7	5.00
DEC						
17...	K35	520	344	1.30	5.1	5.20
JAN						
21...	K110	K2300	69	1.60	4.6	6.80
FEB						
18...	1200	940	331	0.48	3.0	6.60
MAR						
18...	2000	1700	2060	0.16	3.2	5.20
APR						
22...	K87	K130	576	0.08	2.8	4.60
MAY						
27...	210	K1000	593	0.07	2.1	3.00
JUN						
24...	1200	2900	6760	0.06	4.3	2.70
JUL						
29...	<80	310	14	0.03	1.2	4.30
AUG						
19...	130	180	20	0.02	1.1	4.70
SEP						
16...	640	1700	232	0.03	2.3	4.30

E ESTIMATED
K BASED ON NON-IDEAL COLONY COUNT

07106500 FOUNTAIN CREEK AT PUEBLO, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1490	1120	1310	1200	1200	1240	1200	985	879	719	1870	1220
2	1480	910	1300	1230	1180	1270	1180	957	991	798	1920	1290
3	1520	1070	1300	1230	1200	1210	1180	814	1010	870	1980	1320
4	1440	1100	1290	1210	1200	1140	1150	763	1040	820	1970	1360
5	1380	1140	1280	1210	1210	1150	1110	819	1070	850	1920	1370
6	1410	---	1270	1220	1190	1120	1120	855	1100	865	1920	1230
7	1460	---	1260	1220	1200	1130	1160	725	1120	949	1910	1160
8	1480	---	1250	1220	1190	1140	1150	628	1140	1040	1970	1000
9	1510	---	1260	1230	1200	1150	1140	643	---	1030	1880	1300
10	1520	---	1300	1260	1190	1170	1130	668	---	1070	1310	1330
11	1490	---	1300	1270	1210	1200	1130	693	791	1130	1410	1100
12	1490	1310	1290	1260	1220	1210	1100	694	780	1150	1610	1200
13	1500	1330	1330	1250	1220	1210	1060	712	810	1120	1500	1240
14	1490	1300	1320	1260	1210	1180	1090	717	863	1200	1190	1300
15	1490	1280	1270	1280	1130	1160	1100	714	906	1280	1320	1270
16	1520	1280	1220	1410	1160	1070	1080	777	927	1300	1540	1230
17	1510	1280	1200	1500	1170	921	1050	719	961	1350	1660	1300
18	1500	1310	1180	1400	1190	1040	1020	776	1020	1340	1610	1300
19	1500	1330	1150	1350	1210	1060	959	808	1020	1440	1680	1320
20	1470	1350	1200	1400	1240	1090	886	725	1010	1480	1680	1300
21	1100	1340	1210	1460	1280	1150	864	730	997	1510	1660	1300
22	1220	1320	1240	1420	1180	1190	907	675	1000	1580	1540	1340
23	1310	1340	1220	---	1190	1190	947	694	1030	1660	737	1350
24	1260	1320	1170	---	1220	1200	941	640	762	1640	1030	1350
25	1270	1320	1190	1350	1230	1200	884	674	1040	1570	1190	1340
26	1270	1310	1200	1180	1200	1220	861	754	983	1550	961	1340
27	1240	1310	1200	1100	1250	1220	871	808	1020	1530	820	1380
28	1220	1310	1190	1180	1250	1220	901	846	1050	1600	833	1300
29	1200	1320	1180	1180	---	1230	907	910	950	1690	933	1310
30	1340	1320	1180	1200	---	1190	962	949	649	1620	1070	1330
31	1350	---	1190	1240	---	1200	---	907	---	1850	1190	---
MEAN	1401	---	1240	---	1204	1164	1035	767	---	1277	1471	1283

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.0	9.5	8.0	6.5	9.5	2.5	3.0	1.0	11.0	2.0	11.0	.5
2	17.5	12.0	8.5	6.0	7.5	.5	3.0	1.0	11.5	4.5	12.0	1.5
3	14.0	11.5	11.0	5.0	7.0	.5	5.0	1.0	10.0	3.0	13.0	3.0
4	21.0	9.0	13.0	7.5	7.5	1.5	7.5	1.0	7.0	3.5	14.0	3.5
5	19.0	9.5	12.5	5.0	9.5	3.0	8.0	1.0	10.5	2.5	15.5	4.5
6	22.5	10.5	---	---	6.0	4.5	7.0	1.0	10.5	1.0	16.0	5.5
7	23.0	11.0	---	---	4.5	1.5	6.0	2.5	11.5	1.0	16.5	6.0
8	22.0	10.5	---	---	5.0	.5	7.0	2.0	10.5	2.0	10.0	5.5
9	18.5	13.0	---	---	3.0	.5	6.0	1.0	11.0	1.0	6.5	3.5
10	19.0	12.0	---	---	.5	.0	4.0	1.0	11.0	2.0	12.0	2.0
11	12.5	7.0	---	---	2.5	.0	7.0	1.0	13.0	2.5	12.0	3.5
12	9.0	4.0	3.5	1.0	3.5	.5	9.5	1.0	11.0	5.0	15.5	4.0
13	17.5	5.0	6.5	1.0	6.5	.5	9.5	1.0	12.5	3.0	15.0	5.0
14	19.5	6.5	10.5	1.0	6.0	.5	7.0	2.5	8.0	4.5	15.5	4.5
15	19.0	7.5	12.5	4.0	6.5	.5	3.5	1.0	7.0	3.5	13.5	6.5
16	18.5	7.5	12.5	5.0	7.0	1.0	1.0	.5	7.5	4.5	10.5	6.0
17	20.0	7.5	13.0	5.0	5.5	1.0	1.0	.0	9.0	3.5	8.0	4.5
18	19.5	8.0	11.5	5.0	5.0	1.0	1.0	.0	6.5	2.0	15.0	4.5
19	18.5	9.0	13.5	5.0	6.0	1.0	1.0	.0	4.5	2.0	11.0	5.5
20	15.5	12.0	12.0	4.0	6.0	1.0	.5	.0	9.5	.5	11.5	5.5
21	17.5	10.0	13.0	3.0	7.5	1.5	.0	.0	8.5	1.0	14.0	2.5
22	18.0	7.5	7.0	5.0	6.5	1.0	.0	.0	9.0	1.0	9.0	4.0
23	19.0	11.0	10.5	4.0	6.0	1.0	.0	.0	10.0	.5	12.5	1.5
24	18.5	10.0	10.0	1.5	7.0	1.5	1.0	.0	4.5	1.0	10.0	1.5
25	17.0	8.0	9.0	2.5	6.0	1.0	5.0	.5	12.5	3.0	11.0	1.5
26	17.5	7.5	8.5	3.0	5.5	1.0	8.0	1.5	5.5	1.0	15.5	2.0
27	17.0	6.5	10.0	.5	4.5	1.0	9.0	1.5	8.5	.5	7.0	1.5
28	17.5	7.0	11.5	3.0	6.5	1.0	9.5	2.0	10.0	.5	7.5	.5
29	---	8.0	10.5	3.0	6.5	1.0	7.5	1.0	---	---	7.5	.5
30	17.5	---	4.5	2.5	4.5	1.0	8.0	1.5	---	---	12.0	.5
31	13.0	8.0	---	---	4.5	1.0	10.5	3.0	---	---	16.5	1.5
MONTH	---	---	---	---	9.5	.0	10.5	.0	13.0	.5	16.5	.5

07106500 FOUNTAIN CREEK AT PUEBLO, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	17.0	3.5	23.0	11.5	26.5	14.0	27.5	17.5	---	---	29.0	16.0
2	16.5	4.0	22.5	12.0	26.5	14.5	29.0	19.5	---	---	31.5	16.5
3	17.0	4.0	13.0	9.0	18.0	15.0	29.0	20.0	---	---	28.5	16.0
4	12.0	5.0	18.0	8.0	26.0	12.5	27.5	20.0	---	---	24.0	18.5
5	9.0	5.5	15.5	11.5	25.0	15.5	28.0	19.0	---	---	26.0	18.5
6	17.0	4.5	16.0	11.5	23.0	16.5	29.5	19.5	---	---	26.0	16.5
7	16.5	5.5	22.0	10.5	20.5	17.0	30.5	17.0	---	---	29.0	15.5
8	19.0	5.5	22.5	12.5	22.5	17.5	29.5	17.0	---	---	29.0	14.5
9	15.0	7.5	22.0	13.0	20.5	18.0	29.0	17.0	---	---	27.5	15.0
10	18.5	7.5	23.0	12.0	25.5	17.0	29.5	16.0	28.5	18.0	29.5	15.5
11	18.0	8.0	24.0	13.5	27.5	17.0	27.0	17.5	---	---	26.0	13.5
12	12.0	6.0	23.5	13.5	27.0	17.5	20.0	17.0	---	---	27.0	14.0
13	13.5	4.0	23.5	14.0	28.0	17.0	27.0	15.0	---	---	26.0	14.0
14	19.0	4.0	23.5	14.5	27.0	16.5	29.0	15.0	---	---	28.0	14.5
15	22.0	8.0	24.5	15.0	27.0	17.0	31.0	16.5	---	---	24.0	14.0
16	23.0	9.5	26.0	15.0	26.5	17.0	29.5	15.5	---	---	27.0	11.5
17	24.0	10.0	25.0	16.5	27.0	15.5	---	---	---	---	24.0	15.0
18	22.0	11.5	25.0	15.0	28.0	16.5	---	---	---	---	25.5	13.5
19	19.0	11.5	18.0	15.0	29.0	16.5	---	---	---	---	25.5	10.5
20	15.0	7.0	23.5	14.5	29.0	18.5	---	---	---	---	24.5	12.0
21	19.0	6.5	18.0	13.5	27.0	16.5	---	---	---	---	26.0	11.5
22	22.0	7.5	20.5	13.0	28.5	16.0	---	---	---	---	25.5	12.0
23	22.5	10.0	18.5	13.5	27.0	17.0	---	---	17.5	15.5	26.5	12.0
24	23.0	10.0	20.0	12.5	26.5	16.0	---	---	26.0	14.5	26.5	12.5
25	22.5	11.5	20.0	11.5	27.5	18.0	---	---	28.5	16.5	26.0	12.5
26	23.0	10.5	22.0	13.5	29.0	17.0	---	---	23.0	17.5	27.0	13.0
27	17.5	13.0	23.5	11.5	30.0	18.0	---	---	21.0	16.5	22.5	13.5
28	24.0	10.0	21.0	12.5	25.0	17.5	---	---	24.5	14.5	23.0	12.0
29	21.0	11.5	23.5	12.5	20.5	18.0	---	---	26.5	14.5	23.5	11.0
30	21.5	11.5	25.5	12.0	22.0	17.5	---	---	27.5	16.0	23.0	10.0
31	---	---	26.0	13.0	---	---	---	---	28.0	16.5	---	---
MONTH	24.0	3.5	26.0	8.0	30.0	12.5	---	---	---	---	31.5	10.0

07108900 ST. CHARLES RIVER AT VINELAND, CO

LOCATION.--Lat 38°14'44", long 104°29'09", in NE¼SW¼ sec.6, T.21 S., R.63 W., Pueblo County, Hydrologic Unit 11020002, on right bank at right downstream end of downstream bridge on U.S. Highway 50C, 1.6 mi west of Vineland, and 3.0 mi upstream from mouth.

DRAINAGE AREA.--474 mi^2.

PERIOD OF RECORD.--October 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,581.58 ft above National Geodetic Vertical Datum of 1929, (Colorado Division of Highways benchmark).

REMARKS.--Estimated daily discharges: Dec. 10-12, 26 to Jan. 1, Jan. 16-24. Records good except those for periods of estimated daily discharges and those above 2,000 ft^3/s, which are poor. Natural flow of stream affected by diversions upstream from station for irrigation of about 8,500 acres, and for industrial uses, and return flow from land irrigated by Bessemer Ditch. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years, 49.1 ft^3/s; 35,570 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,560 ft^3/s, Aug. 11, 1982, gage height, 12.70 ft, from rating curve extended above 1,800 ft^3/s; minimum daily, 0.25 ft^3/s, Apr. 25, 1979.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1901, 56,000 ft^3/s, at a site 5.0 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,180 ft^3/s, at 2400 Aug. 9, gage height, 10.00 ft, from rating extended above 1,800 ft^3/s; minimum daily, 9.5 ft^3/s, Sept. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	23	22	15	24	21	54	441	144	138	12	16
2	18	22	20	15	28	23	59	417	158	101	17	15
3	17	22	19	16	27	24	56	422	165	67	96	14
4	18	20	20	20	24	25	91	431	173	48	25	14
5	17	21	21	22	22	28	97	344	165	42	18	14
6	17	20	21	17	19	33	88	509	164	37	14	14
7	17	19	22	17	18	43	121	735	159	31	12	14
8	15	19	20	16	20	54	124	606	148	30	12	13
9	16	19	21	14	19	52	137	520	159	28	354	18
10	19	17	18	17	19	43	162	482	192	25	386	16
11	36	16	19	16	20	38	204	452	145	24	35	13
12	22	17	19	17	20	38	256	432	126	24	21	37
13	20	18	19	18	20	37	256	458	115	26	50	17
14	19	18	19	18	21	39	227	496	106	25	30	13
15	18	18	18	16	28	43	247	601	100	21	24	12
16	18	18	18	12	27	49	317	587	94	21	19	12
17	18	18	19	12	25	57	424	576	81	19	16	10
18	17	16	19	13	24	56	524	536	69	19	12	25
19	17	17	19	14	25	58	623	491	64	17	11	14
20	17	17	19	13	24	64	659	433	60	19	11	11
21	17	18	20	13	20	58	477	410	53	19	11	11
22	17	19	19	13	19	54	394	380	47	19	11	9.9
23	17	20	21	14	22	55	363	362	40	17	21	9.5
24	17	19	19	15	22	52	414	380	40	16	17	9.8
25	18	19	19	15	22	51	454	349	35	16	14	9.8
26	19	19	18	15	26	51	493	304	38	16	14	11
27	20	19	17	16	25	52	527	241	39	13	27	11
28	20	21	18	17	21	55	459	199	33	11	26	11
29	19	21	18	20	---	52	431	171	30	13	22	11
30	19	21	17	20	---	49	455	152	65	12	20	11
31	18	---	16	23	---	49	---	141	---	12	17	---
TOTAL	575	571	594	499	631	1403	9193	13058	3007	926	1375	417.0
MEAN	18.5	19.0	19.2	16.1	22.5	45.3	306	421	100	29.9	44.4	13.9
MAX	36	23	22	23	28	64	659	735	192	138	386	37
MIN	15	16	16	12	18	21	54	141	30	11	11	9.5
AC-FT	1140	1130	1180	990	1250	2780	18230	25900	5960	1840	2730	827

CAL YR 1986 TOTAL 14325.6 MEAN 39.2 MAX 992 MIN 9.8 AC-FT 28410
WTR YR 1987 TOTAL 32249.0 MEAN 88.4 MAX 735 MIN 9.5 AC-FT 63970

07109500 ARKANSAS RIVER NEAR AVONDALE, CO

LOCATION.--Lat 38°14'53", long 104°23'55", in NE¼SW¼ sec.1, T.21 S., R.63 W., Pueblo County, Hydrologic Unit 11020002, on right bank 15 ft downstream from bridge on Sixmile Rd., 0.3 mi upstream from Sixmile Creek, and 2.6 mi west of Avondale.

DRAINAGE AREA.--6,327 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1939 to September 1951, February 1965 to current year.

REVISED RECORDS.--WSP 1087: 1942. WSP 1311: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,509.53 ft above National Geodetic Vertical Datum of 1929. Prior to February 1965, at site 550 ft downstream at datum 1.37 ft, lower.

REMARKS.--Estimated daily discharges: July 17-23. Records good except for period of estimated daily discharge, which is fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation of about 123,000 acres and municipal use, and return flow from irrigated areas. Flow partly regulated by Pueblo Reservoir (station 07099350) since Jan. 9, 1974.

AVERAGE DISCHARGE.--20 years (water years 1940-51, 1966-73), 867 ft^3/s; 628,100 acre-ft/yr, prior to completion of Pueblo Dam: 13 years (water years 1975-87), 1,009 ft^3/s; 731,000 acre-ft/yr, subsequent to completion of Pueblo Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 50,000 ft^3/s, June 18, 1965, gage height, 9.77 ft, from rating curve extended above 6,700 ft^3/s, on basis of records for station near Pueblo and indirect measurements of peak flow on Fountain Creek at Pueblo, Chico Creek near North Avondale, and Arkansas River near North Avondale; minimum daily, 50 ft^3/s, Apr. 2, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,420 ft^3/s at 0600 June 10, gage height, 5.39 ft; minimum daily, 246 ft^3/s, Nov. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	805	840	694	664	611	772	772	2730	1930	2970	1090	769
2	750	938	769	664	614	788	795	2780	1810	2670	1080	703
3	538	927	769	669	615	761	853	2870	2080	1860	1130	681
4	486	908	776	674	638	777	895	3190	2730	1980	1100	692
5	549	847	791	686	646	783	916	2920	3050	1630	1210	685
6	530	904	793	624	659	809	925	2900	2950	1540	957	713
7	496	910	814	609	658	842	905	3120	3180	1540	752	739
8	474	919	810	541	659	843	1190	2960	3330	1190	724	776
9	470	910	807	513	662	862	1200	2650	5020	1180	825	678
10	479	879	767	482	682	933	1290	2520	5910	1240	1370	649
11	535	730	678	474	714	944	1460	2560	5820	1220	1060	680
12	487	739	591	475	710	919	1510	2690	5790	1140	785	659
13	574	775	600	485	712	914	1690	2800	5260	1130	845	666
14	644	855	605	491	716	902	2020	3240	4290	1220	875	611
15	651	420	610	492	791	919	1890	4090	4050	1070	829	569
16	669	339	623	470	730	1010	1540	4910	3970	914	743	605
17	686	309	623	440	724	1100	2070	5440	3950	1030	883	628
18	735	292	634	444	720	973	3220	5740	3850	1080	850	604
19	739	286	647	437	752	942	3930	5160	3390	1060	818	588
20	726	272	679	442	758	959	3620	5100	2840	1020	807	577
21	749	265	680	399	748	916	2880	4790	2540	985	757	598
22	751	272	699	395	738	884	2280	4920	2480	990	864	599
23	691	266	778	399	730	864	2060	4160	2340	1040	1280	582
24	702	253	787	401	727	790	2130	4000	2560	1100	1350	569
25	734	246	783	415	724	790	2370	3610	2280	1060	1190	544
26	727	404	779	446	802	789	2420	3100	2150	1010	1220	541
27	715	639	778	503	756	807	2380	2730	2070	947	1710	499
28	692	660	787	537	756	807	2270	2440	1920	981	1310	521
29	679	663	761	554	---	789	2400	2280	1950	1060	1120	520
30	712	665	665	543	---	785	2650	2100	2970	1140	1020	499
31	722	---	672	606	---	736	---	2030	---	1120	890	---
TOTAL	19897	18332	22249	15974	19752	26709	56531	106530	98460	40117	31444	18744
MEAN	642	611	718	515	705	862	1884	3436	3282	1294	1014	625
MAX	805	938	814	686	802	1100	3930	5740	5910	2970	1710	776
MIN	470	246	591	395	611	736	772	2030	1810	914	724	499
AC-FT	39470	36360	44130	31680	39180	52980	112100	211300	195300	79570	62370	37180

CAL YR 1986 TOTAL 432175 MEAN 1184 MAX 5440 MIN 246 AC-FT 857200
WTR YR 1987 TOTAL 474739 MEAN 1301 MAX 5910 MIN 246 AC-FT 941600

07109500 ARKANSAS RIVER NEAR AVONDALE, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April to October 1976, April 1979 to September 1980, December 1985 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1979 to September 1980, December 1985 to current year.
WATER TEMPERATURE: July 1979 to September 1980, December 1985 to current year.
pH: July 1979 to September 1980.
DISSOLVED OXYGEN: July 1979 to September 1980.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Water-quality data prior to December 1985 published in other reports. Specific conductance record is complete for year. No water temperature record Feb. 5 to Mar. 12. Daily maximum and minimum specific conductance data available in the district office.

EXTREMES FOR PERIOD OF RECORD..--
SPECIFIC CONDUCTANCE: Maximum, 1,380 microsiemens Jan.24-25, 1980; minimum, 246 microsiemens June 16, 1980.
WATER TEMPERATURE: Maximum, 31.5°C Aug. 6, 1980; minimum, 0.0°C many days during severe winters..
pH: Maximum, 8.6 units, July 20-21, 1980; minimum, 7.4 units, May 13, 1980.
DISSOLVED OXYGEN: Not determined.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,210 microsiemens, Nov. 18, minimum, 390 microsiemens, May 18, June 11-12.
WATER TEMPERATURE: Maximum, 25.5°C, July 26-27, 29-31; minimum, 0.0°C, Jan. 15-18, 20-23.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	OXYGEN, DISSOLVED (MG/L)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)
OCT							
08...	1430	490	755	8.1	8.4	0.04	1.30
NOV							
14...	1430	857	660	8.1	11.0	0.08	1.20
DEC							
16...	1400	646	770	8.3	12.2	0.15	1.80
JAN							
14...	1100	474	877	8.3	10.8	0.21	2.60
FEB							
13...	1330	725	775	8.4	10.8	0.06	1.90
MAR							
13...	1100	879	752	8.3	10.5	0.07	1.60
APR							
17...	1100	1920	590	7.9	9.6	0.07	0.90
MAY							
13...	1430	2770	556	8.2	9.3	0.09	0.70
JUN							
23...	1200	2300	443	8.4	7.2	0.07	0.60
JUL							
23...	0935	1100	451	7.9	7.3	0.01	0.50
AUG							
20...	1115	821	533	8.2	7.6	0.03	0.50
SEP							
21...	1245	605	712	8.2	8.0	0.02	1.20

07109500 ARKANSAS RIVER NEAR AVONDALE, CO--continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	591	699	722	771	803	753	791	478	572	423	430	701
2	607	687	667	766	800	781	781	474	574	416	439	705
3	713	660	684	771	792	813	748	467	539	466	493	709
4	758	671	672	766	780	801	740	433	485	431	460	685
5	733	686	685	765	770	790	714	432	455	448	438	694
6	736	562	686	795	738	792	720	444	447	444	468	678
7	752	662	688	798	746	781	721	432	439	450	502	686
8	760	660	692	857	753	784	630	449	431	466	504	696
9	765	654	691	870	765	773	598	423	430	464	508	700
10	752	660	705	888	761	754	590	433	434	462	584	699
11	791	713	730	878	733	765	584	474	406	459	550	700
12	783	712	805	883	747	755	570	486	408	465	584	727
13	705	700	790	882	749	732	563	561	416	486	599	703
14	666	680	781	882	750	720	541	564	421	487	586	698
15	664	976	776	869	759	715	546	575	424	489	589	732
16	642	1130	777	864	769	716	589	499	426	498	574	741
17	642	1150	761	884	765	710	568	483	413	489	529	709
18	634	1160	755	880	769	717	519	437	408	456	525	736
19	534	1160	756	889	771	779	490	450	417	450	524	737
20	644	1140	741	888	788	781	456	490	429	446	519	728
21	683	1160	739	912	788	759	463	501	432	450	526	733
22	679	1150	728	917	793	760	494	526	432	445	513	737
23	693	1170	676	934	783	766	498	528	431	430	515	719
24	699	1180	660	942	788	792	476	529	427	425	533	717
25	689	1160	656	948	790	786	472	538	428	442	558	740
26	684	959	687	948	774	783	470	554	436	453	615	726
27	688	736	682	891	781	780	472	560	430	455	596	775
28	708	726	708	858	752	761	483	571	433	450	616	773
29	717	728	716	870	---	775	486	572	453	434	646	779
30	689	731	763	853	---	778	485	583	441	420	637	785
31	695	---	763	806	---	809	---	574	---	432	661	---
MEAN	697	864	721	862	770	766	575	501	444	453	543	722
MAX	791	1180	805	948	803	813	791	583	574	498	661	785
MIN	591	654	656	765	733	710	456	423	406	416	430	678

CAL YR 1986 MEAN 1210 MAX 5440 MIN 458
WTR YR 1987 MEAN 659 MAX 1180 MIN 406

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.0	13.5	11.0	9.0	7.5	4.0	3.0	.5	6.5	2.5	---	---
2	20.0	15.0	10.0	9.0	7.5	4.0	3.5	1.5	7.0	4.0	---	---
3	16.5	14.0	12.0	9.0	6.5	4.0	4.0	1.5	6.0	3.0	---	---
4	18.0	12.5	12.5	10.5	7.0	4.5	5.0	1.5	5.0	3.0	---	---
5	17.5	12.5	12.5	8.5	7.5	5.0	5.0	2.0	---	---	---	---
6	19.0	13.0	12.0	8.5	7.0	5.5	5.0	2.0	---	---	---	---
7	19.0	13.5	11.5	9.0	5.5	4.5	4.5	3.0	---	---	---	---
8	18.0	13.5	10.0	8.0	5.5	3.5	4.5	3.0	---	---	---	---
9	16.5	14.5	10.0	6.5	5.0	3.5	4.5	2.0	---	---	---	---
10	17.0	14.0	8.5	6.0	3.5	2.0	3.0	.5	---	---	---	---
11	14.0	10.0	9.0	5.0	5.0	1.5	4.5	1.0	---	---	---	---
12	10.0	8.5	8.0	5.0	4.5	1.5	6.0	2.5	---	---	---	---
13	15.0	9.0	8.0	4.0	5.5	2.5	6.0	2.5	---	---	9.0	4.0
14	16.0	10.0	9.5	5.0	5.5	2.0	5.5	3.5	---	---	10.0	4.5
15	16.0	11.0	9.5	6.0	5.5	2.5	3.5	.0	---	---	8.0	5.0
16	15.5	11.0	11.0	6.0	5.5	2.5	.5	.0	---	---	7.5	5.0
17	16.0	11.0	10.0	5.5	5.0	2.5	.0	.0	---	---	6.5	4.0
18	15.5	11.0	9.5	6.0	5.5	2.5	1.5	.0	---	---	10.0	4.0
19	15.0	11.5	11.0	6.0	5.0	2.0	2.5	.5	---	---	8.0	5.0
20	14.0	12.5	10.0	5.5	5.0	2.5	.5	.0	---	---	9.0	5.0
21	15.0	12.0	10.5	5.0	5.5	3.0	.5	.0	---	---	9.5	3.5
22	15.0	10.5	8.0	6.5	5.0	2.5	.5	.0	---	---	7.5	4.5
23	16.0	12.0	9.5	5.5	5.0	2.0	1.0	.0	---	---	8.5	3.5
24	15.5	11.5	8.5	4.0	5.0	3.0	5.0	.5	---	---	7.0	3.5
25	14.0	11.0	8.0	5.0	4.5	2.0	5.5	1.5	---	---	8.0	3.0
26	14.5	10.5	6.5	5.0	4.5	2.0	5.5	1.5	---	---	10.0	3.5
27	14.5	10.0	8.0	4.5	4.5	1.5	5.5	2.0	---	---	8.0	3.0
28	14.5	10.0	9.0	5.5	5.0	2.0	5.5	2.5	---	---	5.5	1.5
29	14.5	10.5	8.5	6.0	5.0	1.5	4.0	1.5	---	---	5.5	1.5
30	15.0	10.5	7.5	4.5	4.0	1.5	5.0	1.5	---	---	7.5	1.0
31	13.0	11.0	---	---	3.5	1.0	6.5	2.5	---	---	10.0	3.5
MONTH	20.0	8.5	12.5	4.0	7.5	1.0	6.5	.0	---	---	---	---

07109500 ARKANSAS RIVER NEAR AVONDALE, CO--continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.5	4.5	13.0	8.5	19.0	13.0	21.0	16.0	24.5	19.0	24.0	18.0
2	10.5	4.5	12.0	8.5	19.0	13.0	22.0	16.5	25.0	18.5	24.0	18.5
3	11.0	4.5	9.5	8.0	15.0	13.0	23.0	16.5	23.0	19.0	24.5	17.5
4	9.0	5.5	11.0	7.0	18.0	12.0	22.0	16.5	23.5	18.0	22.0	18.5
5	6.5	5.0	10.5	8.5	18.5	13.0	23.0	16.0	24.5	18.0	23.0	17.5
6	11.5	5.0	11.5	9.0	18.5	13.0	23.5	16.5	25.0	18.0	23.0	17.5
7	11.0	5.5	13.5	8.5	18.5	13.0	22.0	16.5	25.0	19.0	21.5	17.0
8	12.0	5.0	15.0	9.0	17.5	13.5	22.5	17.0	25.0	19.5	22.5	17.0
9	10.0	6.0	14.5	10.0	16.5	13.5	23.5	17.0	22.5	19.0	22.5	17.0
10	12.0	6.0	15.5	9.5	18.0	14.0	23.0	16.5	24.5	17.5	22.5	16.5
11	11.5	6.5	15.5	10.0	18.0	13.5	22.5	16.5	24.5	19.0	21.5	16.5
12	9.5	6.0	15.0	10.0	18.0	14.0	19.0	17.0	23.0	19.5	22.5	16.5
13	9.0	4.5	15.0	10.5	18.5	14.0	22.0	15.5	24.5	18.5	23.0	17.0
14	11.5	4.5	14.5	10.5	18.5	14.0	23.0	16.0	24.5	18.5	23.0	17.0
15	13.0	6.0	15.0	10.5	19.0	14.5	24.0	17.0	25.0	18.0	20.5	16.5
16	14.0	7.5	14.0	10.0	19.0	14.5	24.0	17.0	24.5	17.5	22.0	16.0
17	13.0	7.5	13.5	10.0	19.0	14.5	22.5	17.0	24.0	17.5	20.5	17.5
18	11.5	7.0	14.0	10.0	20.0	15.0	23.5	16.0	23.5	17.5	22.0	16.5
19	11.0	7.0	11.5	10.0	20.5	15.0	24.0	16.5	25.0	18.5	22.0	16.5
20	9.5	6.0	14.5	10.5	21.0	15.5	24.0	16.5	25.0	18.0	21.0	16.5
21	11.5	6.0	12.5	10.5	20.5	15.0	24.0	17.0	24.5	19.0	21.5	15.5
22	13.5	6.5	14.0	11.0	21.5	15.0	25.0	18.0	21.5	18.5	21.0	15.5
23	14.0	7.5	13.5	11.0	21.0	15.5	24.5	18.0	18.5	17.0	21.5	15.0
24	14.0	8.0	14.0	11.0	20.5	15.5	24.5	18.0	22.0	17.0	22.0	15.5
25	13.0	8.5	15.5	11.0	20.5	15.5	25.0	18.0	23.0	18.0	21.0	16.0
26	14.5	8.5	17.0	12.0	21.5	15.5	25.5	18.0	21.0	18.5	22.0	15.5
27	11.5	9.5	17.5	11.5	22.0	16.0	25.5	18.5	20.0	17.5	19.5	16.0
28	14.0	8.0	17.5	12.0	21.5	16.0	25.0	18.5	22.0	16.0	20.0	14.5
29	13.5	9.0	16.5	12.5	17.5	16.0	25.5	18.5	22.5	17.0	20.0	14.5
30	13.0	8.5	18.0	11.5	18.5	16.0	25.5	18.5	22.5	17.0	20.0	14.5
31	---	---	19.0	12.5	---	---	25.5	18.5	23.5	17.5	---	---
MONTH	14.5	4.5	19.0	7.0	22.0	12.0	25.5	15.5	25.0	16.0	24.5	14.5

07116500 HUERFANO RIVER NEAR BOONE, CO

LOCATION.--Lat 38°13'30", long 104°15'37", in NE¼NE¼ sec.18, T.21 S., R.61 W., Pueblo County, Hydrologic Unit 11020006, at right upstream end of bridge on U.S. Highway 50, 0.8 mi upstream from mouth, and 1.6 mi south of Boone.

DRAINAGE AREA.--1,875 mi².

PERIOD OF RECORD.--January 1922 to September 1925 (monthly and annual discharge only, published in WSP 1311 as near Nepesta), October 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,443.75 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 9-21, Jan. 16-29 and Aug. 20 to Sept. 10. Records good except for estimated daily discharges and those for extremely low flows during the summer, which are poor. Natural flow of stream affected by diversions for irrigation of about 48,000 acres, and return flow from irrigated areas. Several observations of water temperature and specific conductance were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--11 years (water years 1923-25, 1980-87), 50.1 ft³/s; 36,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,400 ft³/s, Aug. 1, 1923, gage height, 9.4 ft, datum then in use, from rating curve extended above 1,200 ft³/s, on the basis of slope-area measurement of peak flow; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,960 ft³/s at 0415 May 15, gage height, 9.44 ft, maximun gage height, 10.25 ft at 1430 June 4; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	30	49	27	75	35	65	98	966	4.0	.00	.00
2	2.2	32	36	31	63	32	67	256	940	2.3	.00	2.0
3	2.9	27	33	33	59	28	69	502	920	1.7	.00	1.0
4	3.8	30	38	39	58	27	51	688	900	1.7	.00	.50
5	4.4	30	42	45	57	24	39	555	880	1.5	.00	1.5
6	3.8	28	36	49	51	26	50	735	800	1.1	.00	2.0
7	4.3	34	35	41	45	13	45	795	671	.87	.00	2.5
8	3.9	35	34	50	45	11	32	808	499	1.0	.00	1.5
9	2.9	45	32	38	41	12	23	742	482	.78	128	1.0
10	3.5	40	30	32	38	12	25	740	521	.36	134	.05
11	16	45	30	32	38	24	25	942	499	.15	5.3	1.0
12	21	53	31	34	43	23	25	1230	468	.24	2.3	.38
13	23	62	32	45	43	16	38	1310	467	.65	3.7	.17
14	21	60	34	43	51	11	37	1660	471	.39	16	.00
15	23	58	36	39	65	10	25	1790	481	.50	6.6	.00
16	24	34	37	35	53	25	19	1480	499	.70	.43	.00
17	19	34	36	35	55	36	13	1510	484	.17	.00	5.7
18	15	33	34	38	61	31	19	1540	450	.00	.00	42
19	14	30	34	40	51	43	43	1480	390	.00	.00	3.6
20	19	28	35	38	46	37	56	1530	350	.00	.00	1.8
21	20	35	36	38	34	39	94	1410	210	.00	.00	1.9
22	18	39	38	38	22	31	77	1370	166	.00	.00	1.2
23	20	39	37	40	35	36	69	1380	106	.00	.50	1.9
24	17	38	39	42	36	55	35	1360	91	.00	1.0	1.5
25	18	32	32	46	32	56	46	1350	91	.00	.50	1.3
26	23	25	28	50	33	51	60	1320	85	.00	.00	1.1
27	26	26	26	55	39	40	65	1260	66	.00	.00	.50
28	20	29	29	60	32	69	77	1200	34	.00	.50	.52
29	17	31	30	65	---	76	87	1200	28	.00	1.0	.57
30	21	31	31	71	---	64	93	1170	4.6	.00	.50	.63
31	20	---	30	76	---	68	---	1070	---	.00	.00	---
TOTAL	448.4	1093	1060	1345	1301	1061	1469	34491	13019.6	18.11	300.33	77.82
MEAN	14.5	36.4	34.2	43.4	46.5	34.2	49.0	1113	434	.58	9.69	2.59
MAX	26	62	49	76	75	76	94	1790	966	4.0	134	42
MIN	1.7	25	26	27	22	10	13	98	4.6	.00	.00	.00
AC-FT	889	2170	2100	2670	2580	2100	2910	68410	25820	36	596	154

CAL YR 1986 TOTAL 7220.97 MEAN 19.8 MAX 507 MIN .00 AC-FT 14320
WTR YR 1987 TOTAL 55684.26 MEAN 153 MAX 1790 MIN .00 AC-FT 110400

07119500 APISHAPA RIVER NEAR FOWLER, CO

LOCATION.--Lat 38°05'28", long 103°58'52", in SE¼NW¼ sec.35, T.22 S., R.59 W., Otero County, Hydrologic Unit 11020007, near right bank on downstream side of county highway bridge, 3.5 mi southeast of Fowler, and 5.4 mi upstream from mouth.

DRAINAGE AREA.--1,125 mi^2.

PERIOD OF RECORD.--Streamflow records, April 1922 to September 1925, May 1939 to current year. Monthly discharge only for some periods, published in WSP 1311. Water-quality data available, November 1963 to September 1967, January to April 1969.

REVISED RECORDS.--WSP 957: 1939, 1941. WSP 1117: Drainage area. WSP 1241: 1923(M). WRD Colo. 1974: 1973(M).

GAGE.--Water-stage recorder. Datum of gage is 4,317.05 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 29, 1923, at site 3 mi downstream at different datum. Aug. 29, 1923, to Sept. 30, 1925, at present site at different datum. May 27, 1939 to July 30, 1940, at present site at different datum. July 30, 1940 to Sept. 30, 1985, at datum 2.0 ft, higher.

REMARKS.--Estimated daily discharges: Feb. 12 to Mar. 21 and Aug. 28-29. Records good except for estimated daily discharges, which are poor. Waste water from Oxford Farmers Co. and Rocky Ford Highline canals enters river upstream from station. Diversions upstream from station for irrigation of about 4,700 acres. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--51 years, 29.5 ft^3/s; 21,370 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 83,000 ft^3/s, Aug. 22, 1923, by slope-area measurement 2 mi upstream from present site, caused by failure of Apishapa Dam 31 mi upstream; no flow Feb. 5, 1951.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Sept. 8	0830	*1,860	*8.14				

Minimum daily, 3.3 ft^3/s, Jan. 17, 22-23, Feb. 4, 7-11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	28	4.5	4.9	3.5	6.5	56	74	54	15	8.3	16
2	22	29	4.5	4.7	3.6	6.6	55	82	40	16	10	17
3	26	29	4.8	4.4	3.6	9.0	52	171	75	102	12	17
4	26	48	4.5	4.1	3.3	8.0	47	307	79	18	9.9	17
5	22	24	4.5	4.4	3.5	7.8	31	118	33	12	9.4	20
6	20	30	4.5	4.6	3.5	9.0	20	98	31	17	8.4	19
7	18	30	4.5	4.5	3.3	11	16	110	29	20	11	19
8	17	25	4.5	4.2	3.3	13	19	175	22	17	12	473
9	22	24	4.5	3.9	3.3	17	20	148	65	14	14	65
10	22	28	4.5	4.0	3.3	21	19	133	68	9.7	8.9	57
11	19	26	4.8	4.0	3.3	24	17	137	52	10	9.0	42
12	19	20	4.8	4.1	4.0	27	22	130	63	13	8.5	52
13	10	23	5.0	4.2	5.0	25	24	141	55	12	11	23
14	28	16	5.3	4.3	5.2	25	23	146	55	9.6	11	12
15	43	10	5.3	4.0	5.5	30	18	174	47	9.3	12	14
16	38	8.8	5.3	3.9	7.0	34	26	185	34	8.8	14	15
17	35	8.4	5.1	3.3	6.5	40	27	165	24	12	17	13
18	34	7.4	5.3	3.4	6.0	45	24	157	26	15	15	60
19	32	6.8	5.5	3.8	9.0	42	77	164	29	17	15	26
20	35	6.2	5.2	3.6	10	40	125	175	24	16	12	18
21	34	6.2	5.1	3.4	10	38	167	278	22	9.3	12	15
22	32	5.9	5.2	3.3	8.0	36	149	141	17	11	13	20
23	34	5.9	5.2	3.3	7.7	46	109	126	13	11	12	24
24	32	5.6	5.0	3.7	8.0	44	91	165	13	8.8	23	24
25	29	5.3	4.8	3.9	9.6	44	89	160	16	9.9	23	22
26	28	5.0	4.6	3.7	9.6	46	90	130	11	14	39	23
27	35	5.0	4.8	3.6	8.2	29	71	138	16	13	51	22
28	39	5.0	5.0	3.7	7.0	41	55	124	17	11	30	19
29	41	4.8	4.8	3.8	---	62	54	114	15	12	32	18
30	42	4.5	4.7	3.6	---	39	72	85	16	9.7	27	16
31	34	---	4.8	3.6	---	56	---	62	---	8.1	22	---
TOTAL	895	480.8	150.9	121.9	165.8	921.9	1665	4513	1061	481.2	512.4	1198
MEAN	28.9	16.0	4.87	3.93	5.92	29.7	55.5	146	35.4	15.5	16.5	39.9
MAX	43	48	5.5	4.9	10	62	167	307	79	102	51	473
MIN	10	4.5	4.5	3.3	3.3	6.5	16	62	11	8.1	8.3	12
AC-FT	1780	954	299	242	329	1830	3300	8950	2100	954	1020	2380

CAL YR 1986 TOTAL 8625.3 MEAN 23.6 MAX 1020 MIN 2.6 AC-FT 17110
WTR YR 1987 TOTAL 12166.9 MEAN 33.3 MAX 473 MIN 3.3 AC-FT 24130

07120620 BIG ARROYO NEAR THATCHER, CO

LOCATION.--Lat 37°33'17", long 104°01'15", in NW¼NW¼ sec.4, T.29 S., R.59 W., Las Animas County, Hydrologic Unit 11020005, on left bank 2.4 mi from U.S. Route 350, 4.8 mi east of Thatcher, and 3.2 mi upstream from mouth.

DRAINAGE AREA.--15.5 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,288 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,500 ft³/s, July 28, 1985, gage height, 4.86 ft, from rating curve extended above about 1,100 ft³/s; no flow most of the time.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 3	2345	*88	*3.43	May 6	1745	26	3.16

No flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	2.0	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	4.5	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	1.8	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.15	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.04	.00	.00	.00	.00	.00	.00	8.45	.00	.00	00	.00
MEAN	.0	.00	.00	.00	.00	.00	.00	.27	.00	.00	.00	.00
MAX	.04	.00	.00	.00	.00	.00	.00	4.5	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.1	.0	.0	.0	.0	.0	.0	17	.0	.0	.0	.0

CAL YR 1986 TOTAL 10.28 MEAN .03 MAX 4.0 MIN .00 AC-FT 20
WTR YR 1987 TOTAL 8.49 MEAN .02 MAX 4.5 MIN .00 AC-FT 17

07120620 BIG ARROYO NEAR THATCHER, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1983 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1983 to current year.
WATER TEMPERATURE: October 1983 to current year.
SUSPENDED-SEDIMENT DISCHARGE: July 1983 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1983. Pumping sediment sampler since July 1983.

REMARKS.--Daily data not published are either missing, of poor quality or during periods of no flow. Maximum and minimum specific conductance and water temperature are published only for periods of recorded flow.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,530 microsiemens June 25, 1984; minimum, 210 microsiemens Aug. 1, 1986.
WATER TEMPERATURE: Maximum, 28.0°C Aug. 5, 1986; minimum, 6.5°C May 7, 1987.
SEDIMENT CONCENTRATIONS: Maximum daily, 3,180 mg/L July 28, 1985; no flow most of time.
SEDIMENT LOADS: Maximum daily, 3,760 tons Aug. 1, 1983; minimum daily, no flow most time.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,520 microsiemens May 7; minimum, 360 microsiemens May 6.
WATER TEMPERATURE: Maximum, 26.5°C May 7; minimum, 6.5°C May 7.
SEDIMENT CONCENTRATIONS: Maximum daily, 935 mg/L, May 6; no flow most of time.
SEDIMENT LOADS: Maximum daily, 50 tons (estimated) May 4; no flow most of time.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
MAY									
06...	1730	19	590	8.4	13.0	9.0	160	50	8.1

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
MAY								
06...	52	2	4.8	108	190	7.4	0.40	11

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER DAY)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHOROUS DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAY								
06...	391	388	20.1	0.53	0.27	0.02	28	7

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY					
06...	1635	2.9	2930	23	--
06...	1710	8.4	3960	90	--
06...	1800	21	6570	373	96
06...	1915	8.9	2970	71	99

07120620 BIG ARROYO NEAR THATCHER, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	400	230	---	---
3	---	---	---	---	---	---	---	---	410	410	---	---
4	---	---	---	---	---	---	---	---	360	320	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
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22	---	---	---	---	---	---	---	---	490	300	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	1130	283	---	---	---	---	---	---
25	---	---	---	---	1530	1210	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
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TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
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17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	24.0	21.0	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	19.5	19.0	---	---
22	---	---	---	---	---	---	---	---	23.0	20.0	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
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07120620 BIG ARROYO NEAR THATCHER, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	800	550	---	---
4	---	---	---	---	---	---	---	---	630	500	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
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12	---	---	---	---	---	---	---	---	---	---	---	---
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27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	810	280	---	---	---	---
29	---	---	---	---	---	---	690	670	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	15.0	14.5	---	---
4	---	---	---	---	---	---	---	---	28.0	14.5	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
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28	---	---	---	---	---	---	14.5	7.0	---	---	---	---
29	---	---	---	---	---	---	15.0	15.0	---	---	---	---
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31	---	---	---	---	---	---	---	---	---	---	---	---

07120620 BIG ARROYO NEAR THATCHER, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	750	210	330	330
2	---	---	---	---	940	600	---	---	730	710	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
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22	---	---	---	---	---	---	---	---	310	220	---	---
23	---	---	---	---	---	---	---	---	270	230	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
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TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	16.0	12.5	16.5	15.0
2	---	---	---	---	18.5	13.5	---	---	22.0	18.5	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	22.0	16.5	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	21.5	18.0	---	---	---	---	---	---
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22	---	---	---	---	---	---	---	---	17.5	17.0	---	---
23	---	---	---	---	---	---	---	---	17.0	17.0	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
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31	---	---	---	---	---	---	---	---	18.5	16.5	---	---

07120620 BIG ARROYO NEAR THATCHER, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
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4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	1180	360	---	---	---	---	---	---	---	---
7	---	---	1520	1200	---	---	---	---	---	---	---	---
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TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
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6	---	---	14.0	9.0	---	---	---	---	---	---	---	---
7	---	---	26.5	6.5	---	---	---	---	---	---	---	---
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21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

07120620 BIG ARROYO NEAR THATCHER, CO--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	.00	---	---	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	.00	---	---	.00	---	---
5	.00	---	---	.00	---	---	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	.00	---	---	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	.00	---	---	.00	---	---
31	.00	---	---	---	---	---	.00	---	---
TOTAL	.00	---	---	.00	---	---	.00	---	---
		JANUARY			FEBRUARY			MARCH	
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	.00	---	---	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	.00	---	---	.00	---	---
5	.00	---	---	.00	---	---	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	.00	---	---	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	---	---	---	.00	---	---
30	.00	---	---	---	---	---	.00	---	---
31	.00	---	---	---	---	---	.00	---	---
TOTAL	.00	---	---	.00	---	---	.00	---	---

07120620 BIG ARROYO NEAR THATCHER, CO--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	.00	---	---	1.6	900	18
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	.00	---	---	.00	---	---
5	.00	---	---	.00	---	---	.36	---	13
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.16	---	1.0
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	.00	---	---	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	.00	---	---	.00	---	---
31	---	---	---	.00	---	---	---	---	---
TOTAL	.00	---	---	.00	---	---	2.12	---	---
		JULY			AUGUST			SEPTEMBER	
1	.00	---	---	.75	1440	26	.54	---	17
2	.00	---	---	.98	---	33	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	.00	---	---	.00	---	---
5	.00	---	---	.00	---	---	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	4.0	1550	159	.00	---	---
23	.00	---	---	1.4	---	32	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	.00	---	---	.00	---	---
31	.00	---	---	.45	1290	11	---	---	---
TOTAL	.00	---	---	7.58	---	---	.54	---	---

07120620 BIG ARROYO NEAR THATCHER, CO--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.00	0	.00	.00	0	.00	.00	0	.00
2	.00	0	.00	.00	0	.00	.00	0	.00
3	.00	0	.00	.00	0	.00	.00	0	.00
4	.00	0	.00	.00	0	.00	.00	0	.00
5	.00	0	.00	.00	0	.00	.00	0	.00
6	.00	0	.00	.00	0	.00	.00	0	.00
7	.00	0	.00	.00	0	.00	.00	0	.00
8	.00	0	.00	.00	0	.00	.00	0	.00
9	.00	0	.00	.00	0	.00	.00	0	.00
10	.00	0	.00	.00	0	.00	.00	0	.00
11	.00	0	.00	.00	0	.00	.00	0	.00
12	.00	0	.00	.00	0	.00	.00	0	.00
13	.00	0	.00	.00	0	.00	.00	0	.00
14	.00	0	.00	.00	0	.00	.00	0	.00
15	.00	0	.00	.00	0	.00	.00	0	.00
16	.00	0	.00	.00	0	.00	.00	0	.00
17	.00	0	.00	.00	0	.00	.00	0	.00
18	.00	0	.00	.00	0	.00	.00	0	.00
19	.00	0	.00	.00	0	.00	.00	0	.00
20	.04	---	.11	.00	0	.00	.00	0	.00
21	.00	0	.00	.00	0	.00	.00	0	.00
22	.00	0	.00	.00	0	.00	.00	0	.00
23	.00	0	.00	.00	0	.00	.00	0	.00
24	.00	0	.00	.00	0	.00	.00	0	.00
25	.00	0	.00	.00	0	.00	.00	0	.00
26	.00	0	.00	.00	0	.00	.00	0	.00
27	.00	0	.00	.00	0	.00	.00	0	.00
28	.00	0	.00	.00	0	.00	.00	0	.00
29	.00	0	.00	.00	0	.00	.00	0	.00
30	.00	0	.00	.00	0	.00	.00	0	.00
31	.00	0	.00	---	---	---	.00	0	.00
TOTAL	.04	---	.11	.00	---	.00	.00	---	.00
		JANUARY			FEBRUARY			MARCH	
1	.00	0	.00	.00	0	.00	.00	0	.00
2	.00	0	.00	.00	0	.00	.00	0	.00
3	.00	0	.00	.00	0	.00	.00	0	.00
4	.00	0	.00	.00	0	.00	.00	0	.00
5	.00	0	.00	.00	0	.00	.00	0	.00
6	.00	0	.00	.00	0	.00	.00	0	.00
7	.00	0	.00	.00	0	.00	.00	0	.00
8	.00	0	.00	.00	0	.00	.00	0	.00
9	.00	0	.00	.00	0	.00	.00	0	.00
10	.00	0	.00	.00	0	.00	.00	0	.00
11	.00	0	.00	.00	0	.00	.00	0	.00
12	.00	0	.00	.00	0	.00	.00	0	.00
13	.00	0	.00	.00	0	.00	.00	0	.00
14	.00	0	.00	.00	0	.00	.00	0	.00
15	.00	0	.00	.00	0	.00	.00	0	.00
16	.00	0	.00	.00	0	.00	.00	0	.00
17	.00	0	.00	.00	0	.00	.00	0	.00
18	.00	0	.00	.00	0	.00	.00	0	.00
19	.00	0	.00	.00	0	.00	.00	0	.00
20	.00	0	.00	.00	0	.00	.00	0	.00
21	.00	0	.00	.00	0	.00	.00	0	.00
22	.00	0	.00	.00	0	.00	.00	0	.00
23	.00	0	.00	.00	0	.00	.00	0	.00
24	.00	0	.00	.00	0	.00	.00	0	.00
25	.00	0	.00	.00	0	.00	.00	0	.00
26	.00	0	.00	.00	0	.00	.00	0	.00
27	.00	0	.00	.00	0	.00	.00	0	.00
28	.00	0	.00	.00	0	.00	.00	0	.00
29	.00	0	.00	---	---	---	.00	0	.00
30	.00	0	.00	---	---	---	.00	0	.00
31	.00	0	.00	---	---	---	.00	0	.00
TOTAL	.00	---	.00	.00	---	.00	.00	---	.00
YEAR	8.49		115.15						

07120620 BIG ARROYO NEAR THATCHER, CO--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	.00	0	.00	.00	0	.00	.00	0	.00
2	.00	0	.00	.00	0	.00	.00	0	.00
3	.00	0	.00	2.0	---	40	.00	0	.00
4	.00	0	.00	4.5	---	50	.00	0	.00
5	.00	0	.00	.00	0	.00	.00	0	.00
6	.00	0	.00	1.8	935	25	.00	0	.00
7	.00	0	.00	.15	---	.04	.00	0	.00
8	.00	0	.00	.00	0	.00	.00	0	.00
9	.00	0	.00	.00	0	.00	.00	0	.00
10	.00	0	.00	.00	0	.00	.00	0	.00
11	.00	0	.00	.00	0	.00	.00	0	.00
12	.00	0	.00	.00	0	.00	.00	0	.00
13	.00	0	.00	.00	0	.00	.00	0	.00
14	.00	0	.00	.00	0	.00	.00	0	.00
15	.00	0	.00	.00	0	.00	.00	0	.00
16	.00	0	.00	.00	0	.00	.00	0	.00
17	.00	0	.00	.00	0	.00	.00	0	.00
18	.00	0	.00	.00	0	.00	.00	0	.00
19	.00	0	.00	.00	0	.00	.00	0	.00
20	.00	0	.00	.00	0	.00	.00	0	.00
21	.00	0	.00	.00	0	.00	.00	0	.00
22	.00	0	.00	.00	0	.00	.00	0	.00
23	.00	0	.00	.00	0	.00	.00	0	.00
24	.00	0	.00	.00	0	.00	.00	0	.00
25	.00	0	.00	.00	0	.00	.00	0	.00
26	.00	0	.00	.00	0	.00	.00	0	.00
27	.00	0	.00	.00	0	.00	.00	0	.00
28	.00	0	.00	.00	0	.00	.00	0	.00
29	.00	0	.00	.00	0	.00	.00	0	.00
30	.00	0	.00	.00	0	.00	.00	0	.00
31	---	---	---	.00	0	.00	---	---	---
TOTAL	.00	---	.00	8.45	---	115.04	.00	---	.00
		JULY			AUGUST			SEPTEMBER	
1	.00	0	.00	.00	0	.00	.00	0	.00
2	.00	0	.00	.00	0	.00	.00	0	.00
3	.00	0	.00	.00	0	.00	.00	0	.00
4	.00	0	.00	.00	0	.00	.00	0	.00
5	.00	0	.00	.00	0	.00	.00	0	.00
6	.00	0	.00	.00	0	.00	.00	0	.00
7	.00	0	.00	.00	0	.00	.00	0	.00
8	.00	0	.00	.00	0	.00	.00	0	.00
9	.00	0	.00	.00	0	.00	.00	0	.00
10	.00	0	.00	.00	0	.00	.00	0	.00
11	.00	0	.00	.00	0	.00	.00	0	.00
12	.00	0	.00	.00	0	.00	.00	0	.00
13	.00	0	.00	.00	0	.00	.00	0	.00
14	.00	0	.00	.00	0	.00	.00	0	.00
15	.00	0	.00	.00	0	.00	.00	0	.00
16	.00	0	.00	.00	0	.00	.00	0	.00
17	.00	0	.00	.00	0	.00	.00	0	.00
18	.00	0	.00	.00	0	.00	.00	0	.00
19	.00	0	.00	.00	0	.00	.00	0	.00
20	.00	0	.00	.00	0	.00	.00	0	.00
21	.00	0	.00	.00	0	.00	.00	0	.00
22	.00	0	.00	.00	0	.00	.00	0	.00
23	.00	0	.00	.00	0	.00	.00	0	.00
24	.00	0	.00	.00	0	.00	.00	0	.00
25	.00	0	.00	.00	0	.00	.00	0	.00
26	.00	0	.00	.00	0	.00	.00	0	.00
27	.00	0	.00	.00	0	.00	.00	0	.00
28	.00	0	.00	.00	0	.00	.00	0	.00
29	.00	0	.00	.00	0	.00	.00	0	.00
30	.00	0	.00	.00	0	.00	.00	0	.00
31	.00	0	.00	.00	0	.00	---	---	---
TOTAL	.00	---	.00	.00	---	.00	.00	---	.00
YEAR	8.49		115.15						

07121500 TIMPAS CREEK AT MOUTH, NEAR SWINK, CO

LOCATION.--Lat 38°00'11", long 103°39'20", in NW¼SW¼ sec.35, T.23 S., R.56 W., Otero County, Hydrologic Unit 11020005, on left bank 40 ft shoreward, 125 ft upstream from left end of 20th Rd. Bridge, 1.7 mi southwest of Swink, and 2.9 mi upstream from mouth.

DRAINAGE AREA.--496 mi².

PERIOD OF RECORD.--January 1922 to September 1925, March 1968 to current year.

REVISED RECORDS.--WDR CO 76-1: 1975.

GAGE.--Water-stage recorder. Elevation of gage is 4,120 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 29, 1975, at site 140 ft downstream at datum 0.13 ft, lower.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by minor diversions upstream from station for irrigation, water imported from Arkansas River and Crooked Arroyo for irrigation upstream from station, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--22 years (water years 1923-25, 1969-87), 66.4 ft³/s; 48,110 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,300 ft³/s, July 10, 1978, gage height, 21.11 ft, from floodmark, from rating curve extended above 250 ft³/s, on basis of contracted-opening measurement of peak flow; minimum daily, 3.3 ft³/s, Aug. 7, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1922, 21,400 ft³/s, June 17, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,520 ft³/s at 1530 May 4, gage height, 8.18 ft, from rating curve extended above 250 ft³/s, on the basis of slope-area and contracted-opening measurements of peak flow; minimum daily, 14 ft³/s, Jan. 15, 17, Feb. 1, 7-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	144	22	18	14	46	47	103	86	123	45	104
2	120	159	22	18	15	50	117	93	87	127	48	80
3	113	157	22	18	15	86	168	144	108	133	50	81
4	112	154	22	17	15	74	171	534	88	129	74	87
5	80	142	22	17	15	61	251	280	88	106	54	74
6	114	141	22	16	15	93	227	195	96	75	54	81
7	100	152	22	16	14	231	198	162	96	91	52	99
8	104	154	21	16	14	207	167	137	85	69	54	105
9	105	151	21	15	18	205	152	118	89	60	61	97
10	110	157	20	15	35	209	153	119	96	62	77	118
11	138	162	20	15	53	216	131	160	66	57	80	133
12	183	166	20	15	55	216	140	191	64	66	77	353
13	200	151	20	15	56	165	183	212	72	65	66	146
14	178	153	20	15	56	169	201	190	88	61	58	141
15	166	129	20	14	62	177	142	180	95	60	82	129
16	156	100	20	15	78	184	134	148	85	65	62	116
17	161	74	20	14	75	230	104	121	64	59	74	128
18	162	70	20	15	91	240	103	114	58	54	62	128
19	164	70	20	15	91	216	138	130	59	54	61	136
20	167	45	20	15	89	198	158	173	58	55	59	94
21	137	34	19	15	70	202	167	194	66	47	56	132
22	137	28	19	15	63	167	179	70	67	49	62	125
23	140	26	19	15	68	191	153	64	62	46	72	150
24	155	25	19	15	88	203	125	112	77	44	77	152
25	147	25	19	15	88	212	132	162	118	45	82	142
26	150	24	19	15	81	183	124	89	87	50	99	126
27	150	23	19	15	51	162	121	91	78	52	88	95
28	153	23	18	15	50	193	119	119	70	51	94	128
29	152	23	18	17	---	182	105	103	113	50	119	140
30	145	23	18	17	---	113	112	81	129	48	133	136
31	139	---	18	17	---	55	---	74	---	47	130	---
TOTAL	4346	2885	621	485	1435	5136	4422	4663	2495	2100	2262	3756
MEAN	140	96.2	20.0	15.6	51.2	166	147	150	83.2	67.7	73.0	125
MAX	200	166	22	18	91	240	251	534	129	133	133	353
MIN	80	23	18	14	14	46	47	64	58	44	45	74
AC-FT	8620	5720	1230	962	2850	10190	8770	9250	4950	4170	4490	7450

CAL YR 1986 TOTAL 30989 MEAN 84.9 MAX 856 MIN 13 AC-FT 61470
WTR YR 1987 TOTAL 34606 MEAN 94.8 MAX 534 MIN 14 AC-FT 68640

07122400 CROOKED ARROYO NEAR SWINK, CO

LOCATION.--Lat 37°58'55", long 103°35'52", in SW¼SW¼ sec.5, T.24 S., R.55 W., Otero County, Hydrologic Unit 11020005, on right bank 54 ft downstream from bridge on State Highway 10, 2.0 mi upstream from mouth, and 2.8 mi southeast of Swink.

DRAINAGE AREA.--108 mi^2.

PERIOD OF RECORD.--February 1968 to current year.

REVISED RECORDS.--WDR CO 76-1: 1975.

GAGE.--Water-stage recorder. Elevation of gage is 4,100 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good except above 80 ft^3/s, which are fair. Natural flow of stream affected by minor diversions upstream from station for irrigation, water exported upstream from station to Timpas Creek, water imported from Arkansas River for irrigation upstream from station, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--19 years, 12.1 ft^3/s; 8,770 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,200 ft^3/s, Aug. 7, 1971, gage height, 7.91 ft, from rating curve extended above 87 ft^3/s; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 124 ft^3/s at 1230 May 21, gage height, 3.34 ft, from rating curve extended above 50 ft^3/s, on basis of slope-area measurements of peak flow; minimum daily, 1.2 ft^3/s, Feb. 24 to Mar 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	16	3.6	2.0	1.6	1.2	5.8	11	30	15	9.2	20
2	17	18	3.5	2.0	1.6	1.3	6.0	15	19	11	11	24
3	17	21	3.5	1.9	1.6	1.3	5.3	34	22	11	13	28
4	23	24	3.4	2.0	1.6	1.3	7.6	84	22	14	10	26
5	27	29	3.4	2.1	1.6	1.4	11	66	28	16	6.4	25
6	25	29	3.3	2.3	1.6	1.5	10	61	26	18	6.0	27
7	25	21	3.3	2.4	1.6	1.9	11	90	24	18	6.4	27
8	23	23	3.3	2.4	1.6	15	10	53	24	17	7.2	24
9	22	24	3.1	2.3	1.7	15	12	26	28	17	9.6	25
10	23	29	3.0	2.3	1.6	28	13	22	25	15	13	32
11	25	26	2.9	2.4	1.5	31	15	24	16	12	15	27
12	10	23	2.9	2.4	1.4	18	15	18	17	11	10	31
13	6.7	13	2.9	2.4	1.4	13	19	18	18	13	12	25
14	11	31	2.9	2.2	1.5	26	16	24	14	13	15	24
15	20	12	2.8	2.2	1.7	33	12	28	14	15	16	18
16	16	8.3	2.6	2.3	1.5	27	13	20	13	13	18	19
17	15	7.2	2.5	2.3	1.4	24	15	19	14	12	18	20
18	14	6.6	2.5	2.3	1.3	12	14	19	14	14	16	21
19	14	5.1	2.5	2.4	1.4	17	15	21	14	15	13	22
20	20	5.4	2.5	2.3	1.3	17	14	28	15	13	11	21
21	27	5.7	2.4	2.3	1.3	9.6	15	55	13	8.9	11	20
22	27	6.4	2.4	2.2	1.3	14	14	13	15	9.4	8.6	21
23	27	4.3	2.4	2.1	1.3	23	15	7.5	15	7.2	12	16
24	24	3.7	2.3	2.0	1.2	27	21	14	14	8.0	21	14
25	13	3.5	2.3	2.0	1.2	13	22	26	12	8.9	27	15
26	13	3.5	2.3	1.9	1.2	11	15	44	7.9	9.3	24	11
27	17	3.4	2.2	1.8	1.2	12	14	24	12	12	15	10
28	16	3.7	2.1	1.8	1.2	6.7	22	22	16	9.2	21	11
29	16	3.8	2.1	1.7	---	6.3	30	23	16	7.8	26	9.4
30	14	3.7	2.1	1.6	---	7.9	20	22	18	5.9	28	7.3
31	15	---	2.1	1.7	---	5.6	---	27	---	6.8	30	---
TOTAL	583.7	413.3	85.1	66.0	40.4	422.0	427.7	958.5	535.9	376.4	459.4	620.7
MEAN	18.8	13.8	2.75	2.13	1.44	13.6	14.3	30.9	17.9	12.1	14.8	20.7
MAX	27	31	3.6	2.4	1.7	33	30	90	30	18	30	32
MIN	6.7	3.4	2.1	1.6	1.2	1.2	5.3	7.5	7.9	5.9	6.0	7.3
AC-FT	1160	820	169	131	80	837	848	1900	1060	747	911	1230

CAL YR 1986 TOTAL 5021.4 MEAN 13.8 MAX 123 MIN .96 AC-FT 9960
WTR YR 1987 TOTAL 4989.1 MEAN 13.7 MAX 90 MIN 1.2 AC-FT 9900

07123000 ARKANSAS RIVER AT LA JUNTA, CO

LOCATION.--Lat 37°59'26", long 103°31'55", in SE¼NE¼ sec.2, T.24 S., R.55 W., Otero County, Hydrologic Unit 11020005, on right bank at upstream side of bridge on State Highway 109 in La Junta, 450 ft upstream from King Arroyo.

DRAINAGE AREA.--12,210 mi^2, of which 115 mi^2 is probably noncontributing.

PERIOD OF RECORD.--May to August 1889, September 1893 to December 1895 (gage heights, discharge measurements, and flood data only), April to October 1903, June to November 1908 (gage heights and discharge measurements only), April 1912 to current year. Monthly discharge only for some periods, published in WSP 1311. Published as "near La Junta" in 1903.

REVISED RECORDS.--WSP 1341: Drainage area. WSP 1731: 1922.

GAGE.--Water-stage recorder and nonrecording gage read twice daily. Datum of gage is 4,039.60 ft above National Geodetic Vertical Datum of 1929. See WSP 1711 or 1731 for history of changes prior to June 13, 1940. June 13, 1940, to June 6, 1967, water-stage recorder at site 300 ft upstream at present datum.

REMARKS.--Estimated daily discharges: Dec. 2-4, 16, Feb. 10-19, and Sept. 18-23. Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 400,000 acres, and return flow from irrigated areas. Flow partly regulated by Pueblo Reservoir (station 07099350) since Jan. 9, 1974. Several observations of water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--61 Years (water years 1913-73), 244 ft^3/s; 176,800 acre-ft/yr, prior to completion of Pueblo Dam: 12 years (water years: 1975-86), 253 ft^3/s; 183,300 acre-ft/yr, subsequent to completion of Pueblo Dam.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 200,000 ft^3/s, June 4, 1921, gage height, 18.4 ft, site and datum then in use, from rating curve extended above 15,000 ft^3/s, on basis of slope-area measurement of peak flow; no flow, Jan. 20-23, Mar. 20-22, 1915.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,840 ft^3/s at 2100 July 20, gage height, 8.68 ft; minimum daily, 21 ft^3/s, Mar. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	75	152	252	156	35	27	45	305	87	178	408
2	62	77	310	239	152	38	31	45	364	217	66	145
3	64	77	350	210	156	64	45	33	140	417	266	480
4	68	75	220	203	162	64	51	30	239	1020	521	252
5	68	68	184	187	159	62	38	38	370	566	94	248
6	62	68	162	180	162	64	35	38	588	399	80	118
7	55	68	149	180	162	87	38	42	961	276	75	155
8	64	82	149	180	162	105	35	51	1190	474	89	348
9	47	101	136	173	166	110	30	66	2000	563	84	290
10	40	92	136	173	140	113	30	72	1680	578	94	300
11	68	87	121	173	140	99	35	130	1560	542	99	285
12	68	80	214	173	130	89	40	136	1330	303	66	270
13	64	80	252	170	130	84	44	118	512	82	298	257
14	60	82	310	170	130	62	44	82	211	82	113	295
15	70	84	248	166	140	30	47	45	146	202	113	331
16	72	55	310	166	140	65	44	44	191	68	89	244
17	66	47	300	162	150	104	35	66	146	57	97	187
18	70	40	353	170	150	64	33	94	124	57	102	150
19	110	38	399	162	160	51	28	206	131	44	105	120
20	75	38	500	162	170	63	23	218	454	866	70	90
21	75	38	586	159	173	66	23	152	411	625	77	70
22	72	63	650	159	191	40	23	218	549	141	89	60
23	68	143	500	162	75	42	30	156	650	480	318	50
24	66	152	336	159	60	42	33	121	563	570	430	44
25	68	156	280	152	53	44	28	159	358	563	178	38
26	77	156	248	159	44	38	27	133	216	206	156	38
27	72	156	235	166	38	33	47	118	66	136	77	35
28	64	156	244	170	38	27	57	66	66	130	64	36
29	75	152	252	166	---	21	42	156	97	124	62	30
30	84	152	252	146	---	24	35	191	231	110	64	35
31	72	---	252	152	---	31	---	195	---	84	72	---
TOTAL	2106	2738	8790	5401	3689	1861	1078	3264	15849	10069	4286	5409
MEAN	67.9	91.3	284	174	132	60.0	35.9	105	528	325	138	180
MAX	110	156	650	252	191	113	57	218	2000	1020	521	480
MIN	40	38	121	146	38	21	23	30	66	44	62	30
AC-FT	4180	5430	17430	10710	7320	3690	2140	6470	31440	19970	8500	10730

CAL YR 1985 TOTAL 153517 MEAN 421 MAX 3650 MIN 35 AC-FT 304500
WTR YR 1986 TOTAL 64540 MEAN 177 MAX 2000 MIN 21 AC-FT 128000

07123675 HORSE CREEK NEAR LAS ANIMAS, CO

LOCATION.--Lat 38°05'06", long 103°21'12", in SE¼SW¼ sec.33, T.22 S., R.53 W., Bent County, Hydrologic Unit 11020008, 15 ft right of right upstream end of box culverts on State Highway 194, 3.2 mi upstream of mouth, 3.4 mi downstream from Fort Lyon Canal Aqueduct, and 7.5 mi west of Las Animas.

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,975 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by seepage and sluicing from Fort Lyon Canal. There is some irrigation upstream, however, amounts are unknown. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--8 years, 17.7 ft³/s; 12,820 acre-ft per year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 345 ft³/s, June 7, 1983, gage height, 4.39 ft; from rating curve extended above 130 ft³/s; no flow many days in 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 293 ft³/s at 2130 Jan. 28, gage height, 4.77 ft, from rating curve extended above 190 ft³/s; minimum daily, 5.0 ft³/s, Aug. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	14	15	16	20	18	16	26	22	64	5.8	10
2	12	14	17	16	19	17	16	23	37	69	9.6	9.6
3	19	14	18	17	18	17	16	118	33	60	7.4	10
4	18	13	16	17	17	17	13	267	25	51	15	8.6
5	13	14	22	17	16	17	13	227	15	55	11	9.0
6	19	13	24	16	16	17	15	57	12	46	11	15
7	15	13	23	47	16	17	16	70	10	41	20	10
8	12	14	23	29	16	17	15	57	15	37	21	9.6
9	18	13	22	25	16	16	15	50	31	26	20	11
10	26	13	21	24	16	23	15	49	32	19	18	9.6
11	33	14	20	26	16	23	15	41	23	17	22	9.1
12	31	13	22	28	15	24	15	42	16	16	14	14
13	49	13	22	27	15	22	20	36	14	20	11	11
14	36	13	22	33	16	20	23	33	13	19	10	8.8
15	44	13	22	28	31	18	26	63	14	18	8.7	9.7
16	45	13	22	20	20	22	20	56	20	18	7.2	12
17	48	12	21	97	18	37	19	52	21	33	6.9	14
18	46	13	24	38	16	47	17	49	20	48	6.6	18
19	25	13	29	31	14	30	30	37	33	24	5.9	13
20	40	12	19	61	18	22	42	94	28	19	5.0	13
21	40	13	20	36	20	18	47	101	36	18	5.9	12
22	20	13	19	17	19	17	45	94	41	17	7.2	12
23	23	13	20	19	18	15	31	117	32	19	8.6	12
24	19	13	20	21	18	15	21	64	48	17	9.7	13
25	17	13	19	26	18	14	27	59	56	16	9.4	14
26	15	13	18	33	18	14	28	54	55	15	8.8	15
27	15	13	18	81	18	17	29	48	58	12	10	14
28	14	13	18	142	17	17	33	34	50	10	12	14
29	14	13	18	39	---	16	21	26	56	9.8	14	15
30	13	14	17	23	---	16	27	25	64	9.2	15	28
31	13	---	17	21	---	17	---	23	---	6.9	13	---
TOTAL	763	395	628	1071	495	617	686	2092	930	849.9	349.7	374.0
MEAN	24.6	13.2	20.3	34.5	17.7	19.9	22.9	67.5	31.0	27.4	11.3	12.5
MAX	49	14	29	142	31	47	47	267	64	69	22	28
MIN	11	12	15	16	14	14	13	23	10	6.9	5.0	8.6
AC-FT	1510	783	1250	2120	982	1220	1360	4150	1840	1690	694	742

CAL YR 1986 TOTAL 9544.6 MEAN 26.1 MAX 126 MIN 3.7 AC-FT 18930
WTR YR 1987 TOTAL 9250.6 MEAN 25.3 MAX 267 MIN 5.0 AC-FT 18350

07124000 ARKANSAS RIVER AT LAS ANIMAS, CO

LOCATION.--Lat 38°04'51", long 103°13'09", in SE¼NE¼ sec.3, T.23 S., R.52 W., Bent County, Hydrologic Unit 11020009, on right bank at upstream side of bridge on U.S. Highway 50, 1.1 mi north of courthouse in Las Animas, and 4.2 mi upstream from Purgatoire River.

DRAINAGE AREA.--14,417 mi², of which 441 mi² are probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to November 1898 (gage heights only), August to November 1909 (gage heights and discharge measurements only), May 1939 to current year.

REVISED RECORDS.--WSP 1341: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,883.97 ft above National Geodetic Vertical Datum of 1929. May 13 to Nov. 12, 1898, and Aug. 1 to Nov. 10, 1909, nonrecording gages near present site at different datums. May 23, 1939, to Apr. 27, 1967, water-stage recorder at site 0.4 mi downstream at datum 9.00 ft, lower.

REMARKS.--Estimated daily discharges: Jan. 18 to Feb. 2. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 412,000 acres, and return flow from irrigated areas. Flow partly regulated by Pueblo Reservoir (station 07099350) since Jan. 9, 1974.

AVERAGE DISCHARGE.--34 years (water years 1940-73), 203 ft³/s; 147,100 acre-ft/yr, prior to completion of Pueblo Dam; 13 years (water years 1975-87), 277 ft³/s; 200,700 acre-ft/yr, subsequent to completion of Pueblo Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,000 ft³/s, May 20, 1955, gage height, 15.03 ft, site and datum then in use, from rating curve extended above 24,000 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 0.9 ft³/s, July 31, Aug. 1, 3, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,240 ft³/s at 2200 May 21, gage height, 7.75 ft; maximum gage height, 7.81 ft, at 2100 May 24; minimum daily discharge, 36 ft³/s, Aug. 27-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	613	312	292	500	94	897	429	2980	201	45	45
2	64	645	325	298	540	93	887	340	2950	431	45	42
3	66	776	344	276	572	110	761	403	2710	242	53	42
4	64	925	328	283	519	161	677	1160	2590	224	122	42
5	70	887	364	280	453	181	691	2120	2720	164	100	40
6	72	912	418	285	251	100	779	1280	2600	325	64	37
7	73	848	421	293	160	85	642	1930	2740	162	62	41
8	64	858	438	506	135	90	606	2430	2560	94	71	94
9	60	720	462	798	111	91	542	2270	2200	118	66	90
10	63	701	458	721	120	91	744	1970	2810	73	62	76
11	73	711	461	713	105	101	594	2000	2900	59	58	59
12	79	712	679	647	97	102	588	2060	3060	59	67	316
13	147	599	529	693	98	120	764	1850	3050	58	50	124
14	178	537	349	574	100	109	891	1890	3190	58	49	84
15	131	692	331	278	152	115	1180	2530	2900	59	47	76
16	129	483	327	247	131	97	1180	3220	2260	64	46	68
17	161	405	325	194	140	76	813	4220	1890	84	43	63
18	252	364	331	350	122	91	539	5060	1760	83	39	77
19	334	356	342	400	124	367	1510	4720	1900	68	38	61
20	403	349	319	450	106	493	2780	5080	1370	59	40	61
21	545	317	325	450	108	862	2390	5730	890	58	42	60
22	638	292	328	450	113	890	1780	5930	502	59	39	56
23	639	285	320	400	104	881	1010	5570	238	60	39	58
24	634	273	318	400	105	867	665	5610	308	63	41	56
25	618	273	364	400	116	834	453	5240	245	61	39	55
26	626	268	376	400	106	794	434	4990	261	54	38	59
27	661	272	379	400	103	662	577	4470	191	49	36	56
28	692	293	350	420	96	772	476	4060	162	47	36	50
29	753	301	366	450	---	996	242	3870	137	49	129	47
30	724	305	385	500	---	1190	226	3640	131	49	57	47
31	655	---	351	500	---	1040	---	3280	---	47	48	---
TOTAL	9735	15972	11725	13348	5387	12555	26318	99352	54205	3281	1711	2082
MEAN	314	532	378	431	192	405	877	3205	1807	106	55.2	69.4
MAX	753	925	679	798	572	1190	2780	5930	3190	431	129	316
MIN	60	268	312	194	96	76	226	340	131	47	36	37
AC-FT	19310	31680	23260	26480	10690	24900	52200	197100	107500	6510	3390	4130

CAL YR 1986 TOTAL 93342 MEAN 256 MAX 1930 MIN 32 AC-FT 185100
WTR YR 1987 TOTAL 255671 MEAN 700 MAX 5930 MIN 36 AC-FT 507100

07124000 ARKANSAS RIVER AT LAS ANIMAS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1985 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1985 to current year.
WATER TEMPERATURE: December 1985 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--There was no specific conductance record for the periods Oct. 10-20, 27-29, Nov. 3, 6-7, 12, 17, 20-24, Jan. 22-30, Apr. 16-19, May 7-15, 24-28, June 1, 8-10, 15-22, 25-30, July 1-6, 12-13, 16-19, Aug, 22-24 and Sept. 12-16, and no temperature record May 7-13, June 25-30, July 1-5, 12-13 and 16-19. Daily maximum and minimum specific conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 7,950 microsiemens Jan. 22, 1986; minimum, 780 microsiemens Apr. 21, 1987.
WATER TEMPERATURE: Maximum, 34.5°C Aug. 18, 1986; minimum, 0.0°C many days during most winters.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 5,070 microsiemens July 28, minimum, 780 microsiemens Apr. 21.
WATER TEMPERATURE: Maximum, 32.5°C July 22-23, 28; minimum, 0.0°C many days during winter.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	OXYGEN, DISSOLVED (MG/L)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)
OCT							
21...	0945	513	1720	8.3	9.1	0.08	1.90
NOV							
25...	1000	280	2540	8.3	11.2	0.09	3.40
DEC							
16...	1210	324	2380	8.3	11.0	0.17	3.10
JAN							
28...	1200	420	1850	8.2	8.8	0.12	2.10
FEB							
17...	1500	130	2840	8.3	9.8	0.10	2.20
APR							
03...	1220	690	1530	8.3	9.5	0.09	2.30
23...	1200	994	970	8.3	11.1	0.07	1.10
MAY							
29...	1215	3880	1140	8.2	--	0.04	0.80
JUN							
23...	1340	228	2020	8.2	7.1	0.19	1.20
JUL							
20...	1300	58	3750	8.1	8.9	0.05	0.80
AUG							
11...	0850	58	3680	8.1	8.6	0.08	1.00
SEP							
08...	1430	167	1570	8.2	6.7	0.04	1.30

07124000 ARKANSAS RIVER AT LAS ANIMAS, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3450	1600	2050	2290	1860	4040	1470	1450	---	---	4140	3980
2	3360	1610	2110	2380	1780	4060	1480	1580	1160	---	4050	3900
3	3290	---	2100	2390	1840	3600	1560	1590	1200	---	3800	3540
4	3310	1440	2090	2340	1950	3240	1530	1140	1070	---	3820	3520
5	3180	1440	2150	2330	2000	2440	1530	1020	996	---	3830	3600
6	3160	---	2040	2330	2500	3590	1460	1070	905	---	3930	3580
7	3040	---	2020	2880	3250	3910	1490	---	880	3090	4030	3490
8	3350	1540	2040	2800	3540	3760	1430	---	---	3360	3990	2460
9	3540	1550	2000	1680	3620	3520	1450	---	---	3180	3800	2620
10	3520	1520	1970	1710	3480	3570	1480	---	---	3130	3720	2870
11	3290	1510	1950	1730	3620	3240	1460	---	760	3330	3870	3350
12	3170	---	1780	1850	3650	3620	1430	---	757	---	4090	---
13	2410	1640	1790	1840	3530	3720	1300	---	654	---	4010	---
14	2090	1740	2180	1920	3430	3790	1200	---	631	4180	3930	---
15	2530	1700	2360	2590	3080	3870	1110	---	---	4000	3740	---
16	3410	1850	2360	2380	3420	4010	---	930	---	---	3520	---
17	2800	---	2350	2880	3010	4020	---	943	---	---	3390	3050
18	---	2160	2320	1930	3080	3980	---	967	---	---	3400	3280
19	---	2270	2710	1660	3020	2440	---	985	---	---	3400	3410
20	---	---	2410	2110	3370	1500	826	975	---	4110	3410	3320
21	1770	---	2400	2000	3930	1340	798	921	---	4180	3390	3470
22	1620	---	2380	---	3840	1410	847	948	---	4300	---	3690
23	1550	---	2340	---	3930	1410	986	1030	1970	4360	---	3600
24	1560	---	2330	---	4020	1360	1170	---	1980	4180	---	3780
25	1580	2540	2200	---	3700	1380	1410	---	---	4060	4140	3950
26	1580	2560	2060	---	3850	1450	1500	---	---	4540	4250	3970
27	---	2570	2030	---	3970	1550	1280	---	---	4780	4560	4140
28	---	2420	2030	---	4070	1470	1500	---	---	4900	4640	4240
29	---	2300	2030	---	---	1360	2030	1080	---	4640	2590	4330
30	1560	2130	2070	---	---	1350	2130	1080	---	4270	3510	4420
31	1580	---	2140	1830	---	1410	---	1020	---	4130	3870	---
MEAN	---	---	2155	---	3226	2755	---	---	---	---	---	---
MAX	---	---	2710	---	4070	4060	---	---	---	---	---	---
MIN	---	---	1780	---	1780	1340	---	---	---	---	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	20.5	11.0	10.0	7.0	4.0	.5	1.5	.0	7.0	3.5	11.0	.5
2	22.0	12.5	7.0	6.0	5.0	1.5	1.0	.0	7.5	4.5	12.0	2.5
3	15.5	12.5	9.0	6.5	4.0	1.5	3.0	.0	7.0	5.0	13.0	3.0
4	21.0	11.0	9.0	7.5	4.5	2.0	4.5	.0	5.5	4.5	14.5	4.0
5	18.5	10.0	9.0	6.0	4.0	2.0	5.5	1.5	6.0	4.0	15.0	6.0
6	21.0	10.0	9.5	8.5	3.0	2.5	5.0	2.0	8.0	3.0	16.0	5.5
7	21.5	10.5	9.0	8.5	3.0	2.5	4.5	2.5	9.0	2.5	17.0	6.5
8	21.5	11.0	9.0	5.5	3.5	2.0	3.0	1.5	8.5	3.5	9.5	5.0
9	14.5	11.0	6.5	4.0	2.0	.5	2.5	.5	8.5	3.0	7.5	3.0
10	18.0	10.5	5.5	2.5	1.0	.0	2.0	.0	9.0	3.0	9.0	1.5
11	12.0	6.5	4.0	2.0	.0	.0	2.5	.0	10.5	3.0	9.0	2.0
12	8.5	4.5	3.5	.5	.0	.0	4.0	.5	9.5	4.5	9.0	6.0
13	10.5	3.5	3.5	.0	2.5	.0	4.5	1.5	12.0	4.0	10.0	7.5
14	13.0	6.0	5.0	1.0	3.0	.0	3.0	1.5	7.0	2.5	10.5	8.0
15	15.0	7.0	7.0	3.0	3.5	.5	1.5	.0	7.0	2.5	9.5	7.5
16	14.0	8.5	9.0	5.0	4.0	1.5	.0	.0	5.5	4.0	9.5	6.5
17	13.0	9.5	8.0	7.0	3.0	1.0	.0	.0	9.0	3.5	6.5	3.0
18	13.0	11.0	9.0	6.5	3.0	1.0	.0	.0	8.5	3.0	13.5	2.0
19	14.5	12.5	9.5	6.0	3.0	.0	.0	.0	5.5	3.0	10.0	5.0
20	14.0	12.0	8.5	7.5	3.0	.0	.0	.0	6.5	2.0	10.0	7.0
21	13.5	11.0	8.0	7.0	4.0	1.0	.0	.0	8.5	.5	9.0	6.0
22	14.0	10.0	7.5	7.0	3.5	1.0	.0	.0	9.5	1.5	9.0	7.0
23	13.5	11.0	7.0	6.5	3.5	.5	.5	.0	10.5	2.0	6.5	4.5
24	14.0	11.0	6.5	5.5	3.5	.5	.5	.5	8.0	2.5	6.5	4.0
25	13.5	10.5	7.0	5.0	3.0	.0	.5	.0	11.0	2.5	6.5	3.5
26	13.0	10.0	7.0	4.0	2.5	.0	.5	.5	6.5	5.0	9.5	4.5
27	12.0	10.5	6.5	2.5	2.5	.0	.5	.0	8.0	2.5	7.0	4.0
28	12.5	11.5	7.0	3.0	2.5	.0	.5	.0	8.5	.0	3.5	1.0
29	12.5	11.5	7.0	3.5	2.5	.0	2.5	.0	---	---	3.5	.0
30	13.5	11.5	5.0	1.0	2.0	.0	3.5	1.5	---	---	4.5	.5
31	12.5	10.5	---	---	2.0	.5	6.0	3.0	---	---	8.5	3.0
MONTH	22.0	3.5	10.0	.0	5.0	.0	6.0	.0	12.0	.0	17.0	.0

07124000 ARKANSAS RIVER AT LAS ANIMAS, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.0	6.0	23.0	16.0	19.5	18.0	---	---	28.0	20.0	26.0	16.5
2	11.0	7.5	22.5	15.5	21.5	18.0	---	---	27.0	20.5	25.0	16.0
3	12.0	7.0	15.0	9.5	20.5	18.0	---	---	25.5	21.5	25.0	15.5
4	10.5	8.0	10.0	8.5	20.0	16.5	---	---	24.0	22.5	23.5	17.0
5	9.0	8.0	11.0	9.5	22.5	19.5	---	---	26.5	21.5	25.0	17.5
6	10.0	7.0	13.5	11.0	23.0	20.5	24.0	22.5	27.0	21.0	25.5	17.5
7	12.0	8.0	---	---	23.5	21.0	28.0	21.0	26.5	21.5	25.0	17.5
8	13.0	8.5	---	---	23.5	21.0	23.5	18.5	23.0	22.0	24.0	18.5
9	13.0	10.0	---	---	22.0	20.5	24.5	19.5	22.5	21.5	24.0	15.5
10	15.5	10.0	---	---	21.0	19.5	25.5	17.5	23.5	20.5	21.0	17.5
11	15.5	10.5	---	---	23.0	19.5	22.0	18.5	28.0	21.5	21.5	17.0
12	11.5	8.5	---	---	24.0	21.5	---	---	23.0	20.0	19.0	17.0
13	8.5	6.5	---	---	24.0	21.5	---	---	24.5	18.5	23.5	17.5
14	11.0	5.5	21.0	19.5	24.0	22.0	27.5	20.0	23.5	18.0	23.0	15.0
15	13.5	8.5	20.0	18.0	24.0	22.0	21.5	18.0	23.5	17.0	22.5	14.5
16	13.0	12.0	20.0	18.0	25.5	23.5	---	---	23.5	16.0	25.0	13.0
17	14.0	12.5	20.5	18.5	25.0	23.5	---	---	24.5	16.5	22.0	15.0
18	14.0	13.0	20.5	18.0	24.5	23.0	---	---	21.0	16.0	23.5	13.5
19	14.5	13.5	19.5	17.5	27.0	24.0	---	---	24.5	15.0	24.5	13.5
20	14.0	10.0	19.0	16.5	27.5	25.0	31.5	20.0	23.0	15.5	23.0	14.0
21	12.0	9.0	17.0	15.5	28.0	24.5	29.5	18.5	24.0	14.5	24.0	12.5
22	13.5	10.0	16.5	14.5	29.0	25.0	32.5	18.0	19.0	13.0	24.5	12.5
23	17.0	11.5	18.0	14.0	28.0	22.0	32.5	19.5	13.0	11.5	25.5	12.5
24	19.0	13.0	17.5	16.5	24.0	19.0	31.0	19.5	18.5	10.5	25.0	12.5
25	21.5	14.0	18.5	15.0	---	---	30.0	19.0	28.5	13.5	24.0	13.0
26	23.5	15.5	18.0	15.5	---	---	31.5	18.5	25.0	16.5	25.0	13.0
27	19.5	18.0	18.0	16.5	---	---	32.0	18.0	24.0	15.5	22.0	13.0
28	21.0	16.0	17.5	16.5	---	---	32.5	18.5	28.0	13.5	23.5	12.0
29	24.0	14.5	18.5	16.0	---	---	29.5	18.5	24.0	17.5	23.5	11.5
30	23.5	14.5	19.0	17.0	---	---	26.0	18.5	23.0	17.0	23.0	11.0
31	---	---	20.0	17.5	---	---	26.5	19.5	24.0	16.0	---	---
MONTH	24.0	5.5	---	---	---	---	---	---	28.5	10.5	26.0	11.0

07124200 PURGATOIRE RIVER AT MADRID, CO

LOCATION.--Lat 37°07'46", long 104°38'20", in SW¼NE¼ sec.35, T.33 S., R.65 W., Las Animas County, Hydrologic Unit 11020010, on left bank 70 ft downstream from county bridge, 0.3 mi northeast of Madrid, and 1.0 mi downstream from Burro Canyon.

DRAINAGE AREA.--505 mi^2.

PERIOD OF RECORD.--Streamflow records, March 1972 to current year. Water-quality data available October 1978 to September 1981

GAGE.--Water-stage recorder. Datum of gage is 6,261.61 ft above National Geodetic Vertical Datum of 1929 (U.S. Army, Corps of Engineers bench mark).

REMARKS.--Estimated daily discharges: Dec. 1-4, 9, 13-18, Jan. 2-4, 8-9, 18-31, Feb. 6-13, 19 and Sept. 10-11. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 6,000 acres upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--15 years, 72.6 ft^3/s; 52,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,300 ft^3/s, July 20, 1976, gage height, 12.80 ft, from floodmarks, from rating curve extended above 300 ft^3/s, on basis of drift-timed measurement of peak flow; minimum daily, 3.0 ft^3/s, Feb. 23 to Mar. 2, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug. 13	1700	*1,710	*4.65	No other peak greater than base discharge.			

Minimum daily discharge, 15 ft^3/s, Jan. 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	43	31	19	41	28	68	284	206	210	68	85
2	41	47	28	21	30	29	95	299	234	186	76	68
3	41	47	26	24	26	28	81	289	266	173	83	67
4	41	49	26	26	29	29	105	257	285	166	76	69
5	41	45	28	27	19	34	92	222	313	158	72	69
6	40	38	27	25	21	45	83	215	347	136	64	64
7	39	38	26	21	23	62	78	225	344	115	58	64
8	37	29	22	17	25	78	81	215	374	99	56	68
9	45	29	18	16	25	59	107	221	445	92	99	55
10	41	35	16	17	23	50	108	223	467	79	92	60
11	43	43	18	22	23	41	131	231	440	72	74	48
12	41	40	28	28	23	52	167	245	434	65	70	48
13	37	29	32	27	23	52	147	299	413	69	206	47
14	39	45	35	25	23	66	127	421	414	66	106	41
15	37	36	37	24	24	62	149	449	418	61	83	39
16	37	33	35	19	24	74	205	453	406	67	75	39
17	35	31	33	15	23	68	268	499	376	75	70	36
18	35	30	30	16	22	61	338	491	338	64	67	35
19	34	31	26	20	21	71	364	507	318	56	64	35
20	72	31	28	19	20	67	377	450	293	58	61	35
21	54	30	26	20	24	48	301	404	269	56	59	33
22	42	33	27	22	30	66	272	359	251	57	191	32
23	39	34	23	24	40	68	288	357	220	56	169	31
24	42	24	24	27	29	69	310	405	219	65	99	30
25	40	35	20	32	28	61	295	337	289	79	98	30
26	36	37	20	36	25	54	281	311	257	80	97	30
27	34	27	19	42	19	68	300	283	227	69	174	30
28	34	30	20	37	29	66	302	259	213	69	169	31
29	34	32	19	35	---	56	291	241	218	72	89	32
30	34	35	19	42	---	64	294	215	297	79	74	30
31	34	---	19	50	---	57	---	203	---	72	67	---
TOTAL	1243	1066	786	795	712	1732	6105	9869	9591	2821	2906	1381
MEAN	40.1	35.5	25.4	25.6	25.4	55.9	203	318	320	91.0	93.7	46.0
MAX	72	49	37	50	41	78	377	507	467	210	206	85
MIN	34	24	16	15	19	28	68	203	206	56	56	30
AC-FT	2470	2110	1560	1580	1410	3440	12110	19580	19020	5600	5760	2740

CAL YR 1986 TOTAL 28654 MEAN 78.5 MAX 429 MIN 11 AC-FT 56840
WTR YR 1987 TOTAL 39007 MEAN 107 MAX 507 MIN 15 AC-FT 77370

07124300 LONG CANYON CREEK NEAR MADRID, CO

LOCATION.--Lat 37°06'53", long 104°36'17", in SE¼NW¼ sec.6, T.34 S., R.64 W., Las Animas County, Hydrologic Unit 11020010, on left bank 700 ft upstream from private bridge, 1.4 mi upstream from Oso Canyon, 2.2 mi southeast of Madrid, and 2.3 mi upstream from mouth.

DRAINAGE AREA.--100 mi^2.

PERIOD OF RECORD.--March 1972 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 6,259.09 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 10, Jan. 17-24, and Jan 28-30. Records good except those for estimated daily discharges, which are fair. No diversion upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--15 years, 17.4 ft^3/s; 3,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,140 ft^3/s, July 17, 1979, gage height, 7.37 ft, from floodmarks, from rating curve extended above 1,000 ft^3/s, on basis of slope-area measurements at gage heights, 6.88 ft, and 7.37 ft; no flow, Feb. 22 to May 22, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 11	2400	286	3.87	June 27	1445	200	3.16
Apr. 16	2230	350	4.00	Aug. 22	1630	825	4.75
May 6	2045	1080	5.11	Sept. 3	1945	223	3.72
June 25	1545	*1690	*5.86				

Minimum daily discharge, 0.49 ft^3/s, Jan. 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.78	.98	.74	.59	1.5	1.1	44	11	2.8	10	.87	1.8
2	.74	1.3	.73	.72	1.3	1.2	62	10	2.3	8.3	1.0	1.7
3	.72	1.0	.76	.66	1.0	1.3	57	14	4.3	6.6	1.7	12
4	.78	1.5	.71	.67	.89	1.6	65	68	4.1	6.0	1.6	9.1
5	.78	1.3	.80	.70	.89	2.4	52	194	2.2	5.5	1.5	4.7
6	.76	1.2	.73	.62	.88	4.7	43	610	1.8	4.4	1.2	5.2
7	.74	1.0	.78	.63	.87	13	39	508	2.0	4.1	1.2	4.2
8	.78	1.0	.76	.65	.95	25	41	175	3.1	3.7	1.3	3.9
9	1.2	.82	.53	.64	.95	14	56	82	3.7	3.2	1.5	3.2
10	.78	.64	.50	.62	.95	8.7	83	53	2.3	2.8	1.6	3.3
11	1.0	.82	.51	.78	1.0	5.1	146	40	1.7	2.3	4.8	3.2
12	1.0	.64	.55	.86	1.1	5.8	212	32	1.7	2.3	13	2.7
13	.89	.81	.59	.86	1.2	10	127	27	1.5	2.5	16	2.6
14	.83	.86	.63	.69	1.1	23	103	24	1.8	2.2	3.9	2.3
15	.78	.81	.57	.67	1.4	22	172	27	1.6	2.1	2.2	2.1
16	.78	.78	.55	.53	1.2	48	244	21	1.7	2.6	1.8	2.2
17	.78	.80	.59	.49	1.2	44	236	18	1.2	2.3	1.6	1.8
18	.78	.77	.67	.56	1.2	83	198	15	1.1	1.9	1.3	1.9
19	.80	.78	.65	.60	1.2	108	144	14	.94	1.6	1.2	1.9
20	4.7	.78	.63	.56	1.1	78	96	16	.99	1.6	1.1	1.8
21	1.9	.71	.60	.56	1.1	46	64	14	.91	1.6	1.1	1.9
22	1.3	.73	.63	.60	1.1	43	48	12	.94	1.5	73	1.8
23	1.2	.84	.59	.65	1.1	39	38	10	.73	1.9	41	1.7
24	1.2	.71	.61	.70	1.0	40	31	17	.75	1.6	8.8	1.5
25	.89	.81	.57	.73	1.0	34	25	12	125	1.4	4.2	1.6
26	.93	.80	.63	.75	1.5	32	20	8.4	102	1.3	1.7	1.6
27	.89	.86	.59	1.3	1.4	37	16	6.9	81	1.1	1.4	1.6
28	.89	.85	.56	1.0	1.1	26	18	6.2	14	1.0	27	1.4
29	.93	.85	.59	.90	---	22	14	6.6	9.4	.99	5.1	1.5
30	.89	.70	.58	1.0	---	20	14	5.4	17	1.0	3.2	1.6
31	.86	---	.51	1.1	---	27	---	4.2	---	.95	2.3	---
TOTAL	32.28	26.45	19.44	22.39	31.18	865.9	2508	2061.7	394.56	90.34	229.17	87.8
MEAN	1.04	.88	.63	.72	1.11	27.9	83.6	66.5	13.2	2.91	7.39	2.93
MAX	4.7	1.5	.80	1.3	1.5	108	244	610	125	10	73	12
MIN	.72	.64	.50	.49	.87	1.1	14	4.2	.73	.95	.87	1.4
AC-FT	64	52	39	44	62	1720	4970	4090	783	179	455	174

CAL YR 1986 TOTAL 1518.38 MEAN 4.16 MAX 156 MIN .08 AC-FT 3010
WTR YR 1987 TOTAL 6369.21 MEAN 17.4 MAX 610 MIN .49 AC-FT 12630

07124400 TRINIDAD LAKE NEAR TRINIDAD, CO

LOCATION.--Lat 37°08'27", long 104°33'03", in NE¼SW¼ sec.27, T.33 S., R.64 W., Las Animas County, Hydrologic Unit 11020010, in valve house near center of dam on Purgatoire River and 3.2 mi southwest of courthouse in Trinidad.

DRAINAGE AREA.--672 mi².

PERIOD OF RECORD.--August 1977 to current year.

REVISED RECORDS.--WDR-CO-78-1: 1977(M). WDR CO-83-1: 1981-82 (contents).

GAGE.--Water-stage recorder. Datum of gage is 6,073.64 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army, Corps of Engineers).

REMARKS.--No estimated daily contents. Records good. Reservoir is formed by a rock and earthfill dam completed in 1977. Storage began Aug. 19, 1977. Total capacity, 166,700 acre-ft, at elevation 6,279.99 ft. Elevation of high crest of spillway, 6,258 ft, with capacity of 119,900 acre-ft. Elevation of notch crest in spillway is 6,243.0 ft, capacity, 91,900 acre-ft. Permanent pool is 4,500 acre-ft at elevation 6,142.7 ft. Elevation of outlet invert is 6,095.0 ft. Reservoir is used for flood control, storage for irrigation, and to help control sedimentation. Figures given are total contents.

COOPERATION.--Capacity tables provided by U.S. Army, Corps of Engineers.

EXTREMES (AT 2400) FOR PERIOD OF RECORD.--Maximum contents, 61,800 acre-ft, Apr. 26, 1983, elevation, 6,222.66 ft; no contents prior to Aug. 19, 1977.

EXTREMES (AT 2400) FOR CURRENT YEAR.--Maximum contents, 61,700 acre-ft, June 20, elevation, 6,222.55 ft; minimum contents, 11,900 acre-ft, Oct. 1, elevation, 6,163.16 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)

6,160.0	10,500	6,190.0	28,300
6,165.0	13,100	6,200.0	36,800
6,170.0	15,400	6,210.0	46,800
6,175.0	18,100	6,220.0	58,400
6,180.0	21,200	6,230.0	71,800

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11900	14600	16300	17700	19200	20600	26000	42500	57900	61500	50600	48000
2	12000	14700	16400	17800	19200	20700	26300	43200	58000	61500	50200	48000
3	12100	14700	16400	17800	19300	20700	26700	43900	58100	61500	49700	47900
4	12100	14900	16500	17900	19300	20800	27000	44400	58200	61500	49300	47800
5	12200	15000	16500	17900	19400	20900	27300	45100	58300	61400	48800	47700
6	12300	15000	16600	18000	19400	20900	27600	46200	58400	61300	48400	47600
7	12400	15100	16700	18000	19400	21100	27900	47200	58600	61000	47900	47400
8	12400	15200	16700	18000	19500	21300	28200	47200	58800	60800	47500	47200
9	12500	15200	16800	18000	19500	21400	28600	48500	59200	60500	47100	47200
10	12600	15200	16800	18100	19600	21600	28900	49100	59600	60200	46800	46800
11	12700	15300	16800	18200	19600	21700	29300	49700	59900	59800	46500	46600
12	12800	15400	16800	18200	19700	21800	30000	50300	60200	59400	46300	46500
13	12800	15400	16900	18300	19800	21900	30500	50800	60500	59000	47100	46300
14	12900	15600	16900	18300	19800	22100	30900	51400	60800	58600	47300	46200
15	13000	15600	17000	18400	19900	22200	31400	52000	61000	58300	47400	46000
16	13000	15700	17000	18400	19900	22400	32100	53200	61300	57900	47500	45900
17	13200	15700	17100	18400	20000	22600	33000	53400	61400	57500	47500	45800
18	13200	15800	17200	18400	20000	22900	33900	54100	61500	57000	47400	45700
19	13300	15800	17200	18500	20100	23200	34600	54700	61600	56400	47300	45700
20	13600	15900	17300	18600	20100	23500	35700	55100	61700	55800	47100	45600
21	13700	16000	17300	18600	20100	23800	36300	55400	61600	55200	46800	45600
22	13800	16100	17400	18600	20200	24000	36900	55800	61600	54900	47000	45500
23	13900	16100	17400	18700	20200	24200	37600	56100	61500	54500	47000	45500
24	14000	16200	17400	18700	20300	24400	38200	56500	61400	54100	47000	45500
25	14000	16200	17500	18800	20400	24600	38800	57000	61600	53600	46800	45400
26	14100	16300	17500	18800	20400	24800	39400	57400	61600	53200	46700	45400
27	14200	16400	17600	19000	20500	25000	40100	57600	61600	52800	46900	45300
28	14300	16400	17600	19000	20500	25200	40700	57800	61600	52400	47500	45400
29	14300	16300	17600	19100	---	25400	41300	57900	61500	52000	47800	45400
30	14400	16300	17600	19100	---	25600	42000	57900	61600	51600	47900	45500
31	14500	---	17700	19200	---	25800	---	57900	---	51100	48000	---
MAX	14500	16400	17700	19200	20500	25800	42000	57900	61700	61500	50600	48000
MIN	11900	14600	16300	17700	19200	20600	26000	42500	57900	51100	46300	45300

CAL YR 1986 MAX 26500 MIN 11300
WTR YR 1987 MAX 61700 MIN 11900

07124410 PURGATOIRE RIVER BELOW TRINIDAD LAKE, CO

LOCATION.--Lat 37°08'37", long 104°32'49", in SW¼NE¼ sec.27, T.33 S., R.64 W., Las Animas County, Hydrologic Unit 11020010, on left bank at toe of dam and 3.0 mi southwest of court house in Trinidad.

DRAINAGE AREA.--672 mi^2.

PERIOD OF RECORD.--Streamflow records, December 1976 to current year. Water-quality data available, March 1977 to September 1984.

GAGE.--Water-stage recorder with concrete control. Datum of gage is 6,073.64 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army, Corps of Engineers). Auxillary gage is water-stage recorder in shelter about 1,000 ft downstream.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by diversions upstream from station for irrigation of about 6,000 acres. Flow since Aug. 19, 1977, completely regulated by Trinidad Lake (station 07124400) immediately upstream. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--10 years (water years 1978-87), 82.6 ft^3/s; 59,840 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 963 ft^3/s, Sept. 10, 1981, gage height, 7.89 ft; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 309 ft^3/s at 2230 July 17, gage height, 6.49 ft; minimum daily, 0.05 ft^3/s, Mar. 13-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	.33	21	.14	12	.11	.18	.38	216	228	302	45
2	3.5	.33	.14	.14	12	.11	.14	.39	203	186	301	79
3	3.6	.27	.14	.14	12	.11	.14	.43	255	171	301	98
4	3.7	.18	.14	.14	18	.11	.14	.44	262	173	301	103
5	3.8	.18	.14	.14	7.7	.11	.14	.48	268	177	300	114
6	2.7	.16	.14	.14	.14	.08	.14	.51	273	199	288	114
7	3.6	.14	.14	.18	.14	.09	.15	.48	273	215	278	113
8	3.9	.12	.14	.18	.14	.11	.18	.47	273	224	277	161
9	3.5	.12	.14	.18	.13	.11	.18	.51	237	228	276	187
10	3.6	.14	.14	.18	.13	.09	.18	.51	250	233	272	164
11	3.2	.13	.17	.18	.14	.06	.18	.51	262	237	237	125
12	.26	.26	.18	.18	.14	.06	.18	12	263	238	177	111
13	.27	.44	.18	.17	.14	.05	.18	71	246	237	1.1	111
14	.27	.26	.18	.15	.14	.05	.18	149	239	237	1.1	111
15	.27	.08	.13	.12	.14	.06	.18	174	252	237	1.1	98
16	.27	.08	.14	.14	.14	.08	.18	174	273	237	1.2	92
17	.26	.08	.14	.14	.14	.08	.18	175	280	282	58	92
18	.27	.08	.14	.14	.14	.08	.18	185	265	306	92	66
19	.27	.08	.13	.18	.14	.19	.23	222	244	306	95	59
20	.24	.08	.11	.17	.13	.15	.27	266	259	306	128	63
21	.22	.08	.11	.17	.11	.14	.27	262	269	284	153	63
22	.22	.08	.11	.18	.11	.14	.43	246	261	271	155	43
23	.30	.08	.11	.14	.11	.14	.47	230	257	270	155	31
24	.38	.08	.12	.14	.11	.14	.44	219	257	270	167	42
25	.38	.08	.14	.14	.11	.14	.41	167	260	270	174	47
26	.38	.08	.14	.14	.11	.14	.40	175	265	270	161	47
27	.37	.08	.14	.14	.11	.16	.38	187	267	269	53	16
28	.36	46	.14	.16	.11	.18	.38	199	267	270	.28	1.8
29	.33	66	.14	.18	---	.18	.38	215	267	270	.25	5.5
30	.33	50	.14	4.3	---	.18	.39	215	267	270	.22	5.4
31	.33	---	.14	12	---	.19	---	215	---	291	28	---
TOTAL	63.08	166.10	25.19	20.82	64.65	3.62	7.46	3763.11	7730	7662	4734.25	2407.7
MEAN	2.03	5.54	.81	.67	2.31	.12	.25	121	258	247	153	80.3
MAX	22	66	21	12	18	.19	.47	266	280	306	302	187
MIN	.22	.08	.11	.12	.11	.05	.14	.38	203	171	.22	1.8
AC-FT	125	329	50	41	128	7.2	15	7460	15330	15200	9390	4780

CAL YR 1986 TOTAL 28104.35 MEAN 77.0 MAX 333 MIN .05 AC-FT 55740
WTR YR 1987 TOTAL 26647.98 MEAN 73.0 MAX 306 MIN .05 AC-FT 52860

07126140 VAN BREMER ARROYO NEAR TYRONE, CO

LOCATION.--Lat 37°23'58", long 104°06'55", in SW¼SW¼, sec.27, T.30 S., R. 60 W., Las Animas County, Hydrologic Unit 11020010, on left bank, on Pinon Canyon Army Maneuver Site, 200 ft downstream from military road at gas line crossing near Brown Sheep Camp, 6 mi southeast of Tyrone, and 11 mi upstream from mouth.

DRAINAGE AREA.--132 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,310 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 9-14, 24-25, 27-29, Dec. 2-3, 7-11, 27-28, Dec. 30 to Jan. 6, and Jan. 27-28, which were all ice affected. Records good except for periods of estimated daily discharges, which are poor. Natural flow affected by return flow from irrigation and storage in a small channel reservoir upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 511 ft^3/s Aug. 23, 1986, gage height, 10.02 ft, from rating curve extended above about 45 ft^3/s on basis of flow through culvert computation; no flow many days 1985, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25 ft^3/s at 1315 Feb. 1, gage height, 4.73 ft; maximum gage height, 4.76 ft at 1445 Aug. 24; minimum daily discharge, 0.01 ft^3/s, many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	.03	.18	.20	5.7	.04	.02	.01	.48	3.5	2.3	3.3
2	3.7	.03	.04	.20	2.4	.04	.02	.01	.23	2.5	3.0	2.1
3	4.1	.04	.04	.20	1.5	.04	.02	.23	.16	.89	4.8	1.0
4	2.4	.43	.10	.25	.99	.04	.02	4.4	1.2	.21	5.0	.67
5	1.1	1.3	.29	.40	.65	.04	.01	5.8	2.4	.07	6.6	.60
6	.44	1.0	.17	.20	.43	.05	.01	4.5	1.5	.03	7.5	.22
7	.13	.62	.15	.01	.23	.05	.01	3.3	.37	.02	7.1	.08
8	.04	.22	.15	.01	.15	.05	.01	1.5	.58	.01	7.4	.07
9	.05	.10	.15	.01	.10	.04	.01	1.0	4.8	.24	7.6	.08
10	.09	.10	.15	.01	.08	.04	.01	4.3	5.5	.12	13	.04
11	1.2	.10	.15	.01	.06	.04	.01	10	8.3	.30	8.5	.03
12	1.2	.10	.22	.01	.06	.04	.02	13	10	.52	9.0	.24
13	.65	.10	.16	.04	.06	.03	.02	13	9.9	.27	11	1.6
14	.26	.10	.05	.01	.06	.03	.02	11	8.8	.01	9.6	1.7
15	.06	.03	.01	.03	.06	.03	.04	10	5.8	.01	8.6	2.3
16	.02	.03	.02	.01	.06	.03	.02	8.3	6.0	.01	6.7	1.4
17	.01	.03	.01	.01	.07	.04	.01	6.8	7.4	.01	6.8	1.1
18	.01	.03	.01	.01	.07	.04	.01	11	5.6	.01	9.9	1.3
19	.01	.03	.01	.01	.10	.03	.01	5.9	4.6	.31	10	2.0
20	3.1	.03	.01	.01	.10	.02	.01	3.4	3.1	1.2	8.8	1.6
21	6.3	.03	.01	.01	.07	.04	.01	5.6	1.4	.47	6.6	1.4
22	2.2	.03	.01	.01	.07	.06	.02	7.9	.51	.01	6.4	2.0
23	.89	.03	.01	.01	.09	.06	.01	7.4	.74	.01	7.4	2.5
24	.48	.10	.01	.01	.06	.05	.01	4.0	3.5	.01	10	1.4
25	.24	.10	.01	.01	.03	.02	.01	2.3	4.1	.01	8.9	1.3
26	.09	.03	.20	.04	.06	.01	.01	1.7	3.9	.01	9.2	2.2
27	.05	.10	.20	.57	.07	.01	.01	3.1	3.9	.01	11	1.1
28	.02	.15	.25	.40	.06	.01	.01	3.3	3.7	.01	12	.60
29	.01	.10	.31	.25	---	.01	.01	2.9	1.9	.01	10	.18
30	.01	.04	.25	.21	---	.02	.01	2.0	2.5	.82	7.1	.05
31	.01	---	.20	1.8	---	.02	---	.77	---	1.4	5.0	---
TOTAL	31.97	5.16	3.53	4.96	13.44	1.07	.42	158.42	112.87	13.01	246.8	34.16
MEAN	1.03	.17	.11	.16	.48	.03	.01	5.11	3.76	.42	7.96	1.14
MAX	6.3	1.3	.31	1.8	5.7	.06	.04	13	10	3.5	13	3.3
MIN	.01	.03	.01	.01	.03	.01	.01	.01	.16	.01	2.3	.03
AC-FT	63	10	7.0	9.8	27	2.1	.8	314	224	26	490	68

CAL YR 1986 TOTAL 418.47 MEAN 1.15 MAX 171 MIN .00 AC-FT 830
WTR YR 1987 TOTAL 625.81 MEAN 1.71 MAX 13 MIN .01 AC-FT 1240

07126140 VAN BREMER ARROYO NEAR TYRONE, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1985 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1985 to current year.
WATER TEMPERATURE: May 1985 to current year.

INSTRUMENTATION.--Water-quality monitor since May 1985.

REMARKS.--Daily data that are not published are either missing or of poor quality. Maximum specific conductance recorded value was less than the actual value due to the maximum limitations of the monitor at the time.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 10,200 microsiemens (recorded) Mar. 21, 1987; minimum, 320 microsiemens Aug. 23, 1986.
WATER TEMPERATURE: Maximum, 36.5°C July 4, 1986; minimum, 0.0°C on many days during the winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 10,200 microsiemens (recorded) Mar. 21; minimum, 914 microsiemens Aug. 15.
WATER TEMPERATURE: Maximum, 31.5°C July 8; minimum, 0.0°C on many days during the winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
DEC									
02...	--	0.04	9500	--	0.0	--	--	--	--
JAN									
30...	1000	0.07	5990	--	0.0	--	--	--	--
30...	1115	0.07	5660	8.2	0.0	11.4	1600	160	280
FEB									
17...	1500	0.06	9020	--	6.0	--	--	--	--
MAR									
12...	0810	0.04	9600	--	3.0	--	--	--	--
12...	0900	0.04	9370	8.4	3.5	11.2	3000	320	540
24...	1215	0.04	9570	--	7.0	--	--	--	--
APR									
16...	0810	0.02	9800	--	8.0	--	--	--	--
MAY									
05...	1800	4.8	7250	--	13.5	--	--	--	--
15...	0735	8.7	2700	--	14.5	--	--	--	--
15...	0835	8.7	2700	8.0	14.5	7.1	710	120	100
JUN									
24...	0925	2.8	2090	--	19.0	--	--	--	--
JUL									
30...	0845	0.80	7120	8.0	19.0	6.2	2100	250	370
AUG									
11...	1130	6.1	1540	--	22.5	--	--	--	--
20...	0830	9.6	1770	--	19.0	--	--	--	--
SEP									
02...	1415	2.0	1950	--	21.0	--	--	--	--
16...	1230	1.3	2390	--	17.0	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
JAN								
30...	800	9	12	217	2600	340	0.40	11
MAR								
12...	1600	13	5.5	284	5500	550	0.80	6.7
MAY								
15...	380	6	18	224	1100	140	0.50	17
JUL								
30...	1100	10	25	304	3600	380	0.60	10

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN								
30...	4750	4330	0.90	6.46	9.80	0.01	93	48
MAR								
12...	9500	8690	1.03	12.9	3.80	<0.01	40	120
MAY								
15...	2080	2010	48.9	2.83	0.540	0.30	100	40
JUL								
30...	6680	5920	14.4	9.08	2.90	0.05	60	70

07126140 VAN BREMER ARROYO NEAR TYRONE, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	2480	2250	---	---
2	---	---	---	---	---	---	---	---	2120	2480	---	3560
3	---	---	---	---	---	---	---	---	1530	2950	---	1190
4	---	---	---	---	---	---	---	---	2340	3440	---	1070
5	---	---	---	---	---	---	---	---	3130	4280	---	1000
6	---	---	---	---	---	---	---	---	2970	4310	---	932
7	---	---	---	---	---	---	---	---	2800	4550	---	861
8	---	---	---	---	---	---	---	---	1650	5100	---	887
9	---	---	---	---	---	---	---	---	1450	5880	---	835
10	---	---	---	---	---	---	---	---	1450	6960	---	827
11	---	---	---	---	---	---	---	---	1280	7770	---	919
12	---	---	---	---	---	---	---	---	1090	8300	---	971
13	---	---	---	---	---	---	---	---	971	8720	---	883
14	---	---	---	---	---	---	---	---	952	9030	---	805
15	---	---	---	---	---	---	---	---	914	8530	---	807
16	---	---	---	---	---	---	---	---	1060	7320	---	854
17	---	---	---	---	---	---	---	---	1120	7100	---	884
18	---	---	---	---	---	---	---	---	1610	7280	---	864
19	---	---	---	---	---	---	---	---	1360	5570	---	865
20	---	---	---	---	---	---	---	---	1360	3930	---	900
21	---	---	---	---	---	---	---	1390	1270	3560	---	816
22	---	---	---	---	---	---	---	1310	1490	3660	---	792
23	---	---	---	---	---	---	---	1140	1520	3370	---	846
24	---	---	---	---	---	---	---	1090	1500	2240	---	890
25	---	---	---	---	---	---	---	1320	1630	2780	---	973
26	---	---	---	---	---	---	---	1620	1610	3740	---	1050
27	---	---	---	---	---	---	---	1560	1560	---	---	1300
28	---	---	---	---	---	---	---	1890	1560	7940	---	1360
29	---	---	---	---	---	---	---	2220	1570	8840	---	1370
30	---	---	---	---	---	---	---	2530	1760	9260	---	1430
31	---	---	---	---	---	---	---	2960	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	1637	---	---	---
MAX	---	---	---	---	---	---	---	---	3130	---	---	---
MIN	---	---	---	---	---	---	---	---	914	---	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	23.0	13.0	25.0	17.0	---	---	---	---
2	---	---	---	---	22.5	13.5	25.5	16.0	---	---	24.0	16.0
3	---	---	---	---	20.5	13.0	25.5	15.5	---	---	22.5	13.5
4	---	---	---	---	17.5	15.0	27.0	18.0	---	---	22.5	13.5
5	---	---	---	---	22.0	14.0	28.0	16.5	---	---	22.5	12.0
6	---	---	---	---	26.5	15.0	26.5	16.0	---	---	25.5	12.5
7	---	---	---	---	28.5	16.5	27.5	16.0	---	---	23.5	12.5
8	---	---	---	---	28.5	18.5	25.5	20.0	---	---	25.0	10.5
9	---	---	---	---	26.5	19.0	26.0	19.5	---	---	23.0	11.0
10	---	---	---	---	26.0	15.5	28.0	18.5	---	---	24.5	10.5
11	---	---	---	---	28.5	15.5	26.0	18.5	---	---	17.5	15.0
12	---	---	---	---	28.0	15.0	24.0	---	---	---	24.5	14.0
13	---	---	---	---	29.5	15.5	25.5	---	---	---	23.5	13.0
14	---	---	---	---	28.0	16.0	25.5	18.5	---	---	26.0	13.5
15	---	---	---	---	32.5	16.0	26.5	18.5	---	---	24.5	15.0
16	---	---	---	---	31.0	18.0	27.0	18.5	---	---	24.0	14.5
17	---	---	---	---	26.0	17.5	26.0	19.5	---	---	24.5	13.0
18	---	---	---	---	27.0	16.5	31.0	18.0	---	---	18.5	14.5
19	---	---	---	---	28.0	14.5	25.5	16.5	---	---	22.0	13.0
20	---	---	---	---	32.5	14.0	23.5	18.0	---	---	16.0	10.5
21	---	---	20.0	---	26.5	15.0	24.5	20.0	---	---	19.0	7.5
22	---	---	19.5	11.5	28.5	16.0	24.0	20.5	---	---	16.0	10.5
23	---	---	26.5	10.0	27.5	14.5	23.0	20.5	---	---	18.0	7.5
24	---	---	28.0	13.0	27.0	16.0	25.0	18.0	---	---	17.5	8.5
25	---	---	24.5	14.5	23.5	17.0	23.0	17.5	---	---	14.5	8.0
26	---	---	26.5	15.0	23.0	15.0	27.5	19.0	---	---	18.5	6.5
27	---	---	27.0	14.5	25.0	15.0	---	---	---	---	19.0	8.5
28	---	---	26.5	15.0	25.5	17.0	27.5	17.5	---	---	14.0	5.5
29	---	---	23.0	16.0	25.0	17.5	26.0	17.5	---	---	7.0	3.5
30	---	---	25.0	13.5	24.0	18.0	28.0	17.5	---	---	13.5	4.0
31	---	---	22.5	15.5	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	32.5	13.0	---	---	---	---	---	---

07126140 VAN BREMER ARROYO NEAR TYRONE, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1350	---	---	---	---	---	---	2570	5280	8480	3250	2210
2	1430	---	---	---	---	---	---	2020	4320	1940	3560	2530
3	1350	---	---	---	---	---	---	1830	4850	2630	2710	2880
4	1220	---	---	---	---	---	---	1910	6720	4330	4920	3330
5	1170	---	---	---	---	---	---	1440	---	5850	6040	3920
6	1150	---	---	---	---	---	---	1250	---	6230	6270	4710
7	1150	---	---	---	---	---	---	1270	---	4190	6610	6180
8	1270	---	---	---	---	---	---	1250	---	2230	7280	7110
9	1310	---	---	---	---	---	---	1300	---	2410	4520	7000
10	1430	---	---	---	---	---	---	1350	---	3060	5540	6330
11	1600	---	---	---	---	---	---	1430	---	4420	6520	5780
12	1620	---	---	---	---	---	---	1480	---	5060	8420	6820
13	1700	---	6890	---	---	---	---	1360	---	5670	8670	7950
14	1470	---	5510	---	---	---	---	1330	---	5240	8890	8260
15	1440	8700	5530	---	---	---	---	1290	---	5280	8830	7910
16	1330	8800	5550	---	---	---	---	1270	---	5590	8950	8250
17	1350	8800	5520	---	---	---	---	1270	---	5930	9130	8610
18	1380	---	5320	---	---	---	---	1390	9860	6320	8880	8050
19	1470	8660	5070	---	---	---	---	1570	9670	6590	8550	7610
20	1520	8790	4170	---	---	---	---	2750	9630	6560	2980	6770
21	1580	8610	---	---	---	---	---	4900	9640	4700	2330	5580
22	1740	8480	---	---	---	---	---	---	9680	5190	2140	4930
23	2120	---	---	---	---	---	---	---	9470	6020	753	3080
24	2580	---	---	---	---	---	---	---	---	3560	1470	2520
25	---	---	---	---	---	---	---	---	7010	3210	1640	2140
26	---	---	---	---	---	---	---	---	7060	3220	1640	2120
27	---	---	---	---	---	---	---	---	7430	3090	1670	1610
28	---	---	---	---	---	---	5430	---	8300	2940	1450	1710
29	---	---	---	---	---	---	3750	---	9160	2960	1620	1550
30	---	---	---	---	---	---	3000	---	9140	3620	1900	1530
31	---	---	---	---	---	---	---	---	---	3010	2060	---
MEAN	---	---	---	---	---	---	---	---	---	4501	4813	4966
MAX	---	---	---	---	---	---	---	---	---	8480	9130	8610
MIN	---	---	---	---	---	---	---	---	---	1940	753	1530

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.5	5.0	---	---	.0	.0	---	---	---	---	---	---
2	14.0	6.0	---	---	.0	.0	---	---	---	---	---	---
3	16.0	6.0	---	---	.0	.0	---	---	---	---	---	---
4	14.5	6.5	---	---	.0	.0	---	---	---	---	---	---
5	16.0	4.5	---	---	.0	.0	---	---	---	---	---	---
6	16.0	6.5	---	---	.0	.0	---	---	---	---	---	---
7	15.5	9.0	---	---	.0	.0	---	---	---	---	---	---
8	12.5	7.5	---	---	.0	.0	---	---	---	---	---	---
9	10.5	6.5	---	---	.0	.0	---	---	---	---	---	---
10	14.0	6.0	---	---	.0	.0	---	---	---	---	---	---
11	16.5	7.5	---	---	.0	.0	---	---	---	---	---	---
12	16.0	7.5	---	---	.0	.0	---	---	---	---	---	---
13	10.0	5.0	---	---	.0	.0	---	---	---	---	---	---
14	12.5	6.0	---	---	.0	.0	---	---	---	---	---	---
15	13.5	3.5	---	---	.0	.0	---	---	---	---	---	---
16	13.5	4.0	2.0	.0	.0	.0	---	---	---	---	---	---
17	11.0	---	3.5	.0	.0	.0	---	---	---	---	---	---
18	11.0	---	3.0	.0	.0	.0	---	---	---	---	---	---
19	13.5	5.5	.0	.0	.0	.0	---	---	---	---	---	---
20	14.0	6.0	.0	.0	.0	.0	---	---	---	---	---	---
21	14.0	---	.0	.0	---	---	---	---	---	---	---	---
22	---	---	.0	.0	---	---	---	---	---	---	---	---
23	12.5	---	.0	.0	---	---	---	---	---	---	---	---
24	---	---	.0	.0	---	---	---	---	---	---	---	---
25	---	---	3.0	.0	---	---	---	---	---	---	---	---
26	---	---	5.0	1.0	---	---	---	---	---	---	---	---
27	---	---	3.5	.0	---	---	---	---	---	---	---	---
28	---	---	1.5	.0	---	---	---	---	---	---	---	---
29	---	---	2.5	.0	---	---	---	---	---	---	---	---
30	---	---	.0	.0	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

07126140 VAN BREMER ARROYO NEAR TYRONE, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	20.5	11.5	---	---	31.5	18.0	28.5	18.5	23.0	15.5
2	---	---	21.0	11.0	---	---	31.0	16.0	---	---	24.5	---
3	---	---	23.0	12.0	---	---	35.0	18.0	28.0	16.5	24.5	18.0
4	---	---	21.0	7.0	---	---	36.5	20.0	---	---	25.5	18.0
5	---	---	22.5	7.5	---	---	33.0	20.5	32.0	15.5	26.0	17.5
6	---	---	21.0	7.0	---	---	35.0	19.5	32.0	15.5	21.0	---
7	---	---	18.5	8.5	---	---	29.0	22.0	31.0	15.5	22.5	14.5
8	---	---	14.5	7.5	---	---	28.0	21.5	31.5	17.0	26.0	15.5
9	---	---	16.5	5.5	---	---	26.5	22.0	28.5	16.5	23.5	16.0
10	---	---	18.0	---	---	---	33.0	19.0	28.0	18.0	20.0	---
11	---	---	21.0	9.0	---	---	31.0	18.5	32.0	15.5	22.5	12.5
12	---	---	21.5	10.0	---	---	28.0	18.5	32.0	15.0	25.0	11.5
13	---	---	20.0	9.5	---	---	26.5	---	32.0	17.5	24.5	15.0
14	---	---	18.5	8.5	---	---	30.5	---	27.5	16.0	25.0	17.0
15	---	---	19.9	11.0	---	---	31.0	19.0	32.5	16.5	23.5	---
16	---	---	15.0	9.0	---	---	29.0	18.5	32.5	18.5	23.5	16.0
17	---	---	9.0	4.5	---	---	33.5	18.0	32.0	19.0	22.0	---
18	---	---	18.0	4.5	29.5	---	32.0	17.5	32.0	19.5	20.0	10.0
19	---	---	21.0	9.5	28.0	17.5	32.0	18.0	31.0	19.5	21.5	10.0
20	---	---	25.0	11.5	28.0	15.0	25.5	18.0	27.0	---	22.0	10.0
21	---	---	---	---	32.0	15.5	29.5	17.0	28.0	19.5	21.0	14.0
22	---	---	---	---	26.0	---	33.0	18.5	26.5	15.5	20.0	11.0
23	---	---	---	---	27.5	14.0	28.5	19.5	21.0	11.0	17.0	11.5
24	---	---	---	---	27.0	17.0	28.0	19.5	27.5	17.5	16.5	10.0
25	---	---	---	---	25.5	17.5	25.5	17.5	28.5	19.0	16.0	6.0
26	---	---	---	---	26.5	18.0	25.5	---	21.5	---	16.5	9.5
27	---	---	---	---	30.0	---	27.0	---	28.0	17.5	17.0	5.5
28	20.5	4.5	---	---	29.5	---	26.5	17.0	27.0	17.5	15.5	10.0
29	17.0	8.5	---	---	25.0	---	30.5	17.5	25.5	18.0	14.0	9.5
30	18.5	10.0	---	---	30.5	---	32.5	14.0	25.5	---	16.0	5.0
31	---	---	---	---	---	---	25.0	15.0	24.5	17.5	---	---
MONTH	---	---	---	---	---	---	36.5	---	---	---	26.0	---

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1650	8630	8980	---	5090	9770	---	---	---	3510	2800	1700
2	1670	8490	9160	---	5160	9730	9470	---	---	3820	2400	1900
3	1600	7860	9260	---	5650	9510	9550	9420	---	4360	2200	2600
4	1880	---	9040	---	6080	9480	9520	---	---	5270	2000	3800
5	2790	5770	8920	---	6890	9430	9470	7150	---	6150	1800	4600
6	3190	6230	8850	---	7690	9330	9530	7810	---	7170	1800	5700
7	---	6590	8820	---	8020	9410	9490	8420	---	8310	1600	7000
8	---	7120	9240	---	8400	9390	9620	9080	---	9030	1500	7800
9	---	7640	9160	---	8750	9340	9920	9930	---	9370	1600	8200
10	---	8410	9330	---	8800	9320	9960	5820	---	9670	1800	8000
11	5110	8660	9800	---	8850	9410	10000	4990	---	9280	1600	8900
12	3660	8770	9660	---	6880	9430	9840	3500	---	4850	1400	9300
13	4500	9020	9540	---	8830	9470	9830	2920	---	4600	1300	3900
14	3840	8690	9520	---	8880	9450	9940	2630	2380	5250	1100	2700
15	---	8760	9430	---	8760	9490	9920	---	3360	6420	1000	2100
16	---	8830	9260	---	8970	9530	9770	---	3410	8270	1100	2460
17	---	8810	9300	---	8860	9580	9740	---	1920	9460	1200	2580
18	---	8850	9130	---	8810	7660	9770	---	1720	---	1500	2830
19	---	8850	9470	---	---	9950	9970	---	1650	---	1700	3040
20	---	8920	9320	---	---	9900	9960	---	1630	3550	1800	3040
21	3510	8880	---	---	---	9850	9810	---	2760	3580	1900	3020
22	3360	8880	---	---	---	9520	9800	---	3440	4290	1900	2930
23	4020	6870	---	---	---	9180	9830	---	3560	5290	1700	2800
24	4520	9050	---	---	---	9150	9530	---	2090	7380	2000	3150
25	---	8940	---	---	---	---	10000	---	1840	9140	1500	3530
26	---	9020	---	---	---	---	---	---	1580	---	1400	3120
27	---	9010	---	---	---	---	9960	---	1930	---	1600	3770
28	8310	9010	---	---	---	---	---	---	1910	---	1700	4540
29	8460	9110	---	3920	---	---	---	---	2410	---	1500	5080
30	8570	8910	---	5680	---	---	---	---	3120	---	1600	6600
31	8710	---	---	5390	---	---	---	---	---	3400	1700	---
MEAN	---	---	---	---	---	---	---	---	---	---	1668	4356
MAX	---	---	---	---	---	---	---	---	---	---	2800	9300
MIN	---	---	---	---	---	---	---	---	---	---	1000	1700

ARKANSAS RIVER BASIN

07126140 VAN BREMER ARROYO NEAR TYRONE, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	5.5	8.0	4.5	.5	.5	.0	.0	4.5	.5	---	---
2	17.0	6.0	6.5	1.5	.5	.5	.0	.0	4.0	1.0	---	---
3	13.0	10.0	10.0	4.0	.5	.0	.0	.0	5.0	1.5	---	---
4	15.5	9.0	7.5	4.5	.0	.0	.0	.0	4.5	2.0	---	---
5	14.5	9.0	8.5	2.0	.0	.0	.0	.0	6.0	1.5	---	---
6	17.0	9.5	8.5	3.5	.0	.0	.0	.0	6.5	.5	---	---
7	20.0	8.0	7.0	3.5	.5	.0	.0	.0	7.0	.0	---	---
8	20.5	4.5	6.0	1.0	.0	.0	.0	.0	6.0	.0	---	---
9	14.5	8.5	4.5	.5	.0	.0	.0	.0	7.5	.0	---	---
10	18.0	7.5	2.5	.5	.0	.0	.0	.0	6.0	.0	---	---
11	11.5	6.0	2.0	.5	.0	.0	.0	.0	8.0	.0	---	---
12	6.0	3.5	1.5	.5	.0	.0	.0	.0	6.0	.0	---	---
13	9.5	2.0	1.5	.5	.0	.0	.0	.0	6.0	.0	---	---
14	13.5	4.0	3.5	.5	.0	.0	.0	.0	3.5	.0	---	---
15	16.5	1.5	6.5	.5	.0	.0	.0	.0	2.5	.0	---	---
16	18.0	1.0	7.5	3.0	.0	.0	.0	.0	1.5	.0	---	---
17	19.5	.5	8.0	1.5	.5	.0	.0	.0	6.0	.0	---	---
18	20.0	2.0	6.0	2.0	.5	.5	.0	.0	6.0	2.0	---	---
19	16.0	8.5	9.0	3.5	.5	.0	.0	.0	5.0	1.0	---	---
20	10.5	8.0	7.0	1.5	.0	.0	.0	.0	4.0	.0	---	---
21	12.0	6.5	7.0	1.0	.0	.0	.0	.0	3.0	.0	---	---
22	12.0	5.0	6.0	3.0	.0	.0	.0	.0	---	---	---	---
23	12.0	8.0	5.5	1.0	.0	.0	.0	.0	---	---	---	---
24	13.5	8.5	4.0	.5	.0	.0	.0	.0	---	---	9.5	---
25	13.0	6.0	5.5	.5	.0	.0	.0	.0	---	---	13.0	.5
26	15.0	3.0	4.5	1.0	.0	.0	.0	.0	---	---	14.5	1.0
27	15.5	1.0	3.5	.5	.0	.0	.0	.0	---	---	6.0	.0
28	15.5	3.0	4.0	.5	.0	.0	1.5	.0	---	---	3.5	.0
29	13.0	5.5	6.0	.5	.0	.0	1.5	.0	---	---	5.5	.0
30	13.5	5.5	2.0	.5	.0	.0	3.0	.0	---	---	8.5	.0
31	12.0	7.0	---	---	.0	.0	5.0	.0	---	---	15.5	.5
MONTH	20.5	.5	10.0	.5	.5	.0	5.0	.0	---	---	---	---

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	16.0	3.0	25.0	11.0	26.0	14.5	26.0	18.0	28.0	21.0	23.5	15.5
2	14.5	2.0	24.5	10.5	28.5	14.0	26.5	18.0	27.5	19.5	21.0	16.0
3	17.0	1.0	12.0	4.5	20.5	14.5	28.5	18.5	25.5	20.5	24.0	15.0
4	13.5	3.0	9.5	4.0	23.5	10.5	29.5	17.5	25.0	19.5	23.5	16.0
5	8.5	3.0	14.0	8.0	26.0	16.5	31.0	15.5	26.0	18.5	24.5	15.0
6	14.5	3.0	14.5	10.5	26.5	16.5	30.0	15.5	26.5	19.5	23.0	13.5
7	14.0	2.5	18.0	9.0	27.0	16.0	31.0	15.5	27.0	21.0	24.0	13.0
8	18.5	2.0	21.5	11.5	25.5	15.5	31.5	15.5	24.5	20.5	25.5	13.0
9	17.0	5.0	25.0	12.5	22.5	18.5	30.5	17.0	25.0	20.5	24.5	12.5
10	20.5	6.5	24.5	12.5	25.0	17.0	29.5	15.5	25.0	19.5	25.0	11.5
11	18.0	6.0	25.5	13.0	26.5	17.5	28.0	15.0	26.0	20.5	25.5	13.0
12	10.5	4.5	21.0	13.5	27.5	18.5	23.5	17.0	24.0	20.5	24.5	13.5
13	12.0	2.5	26.5	12.0	24.5	18.0	27.0	15.0	26.5	19.0	21.5	14.5
14	18.0	1.0	25.0	14.5	25.5	15.5	30.0	15.5	27.0	19.0	19.0	14.0
15	20.5	3.0	23.5	14.0	26.5	18.5	29.0	15.5	27.0	18.5	18.0	12.5
16	24.0	6.5	25.5	13.5	27.5	17.5	28.5	15.0	25.5	17.5	19.5	12.0
17	24.5	7.0	26.5	15.5	25.0	16.5	27.0	15.0	26.0	17.0	18.0	13.5
18	23.0	8.5	26.5	15.0	25.0	16.0	29.0	13.0	26.0	17.0	19.5	13.0
19	23.0	9.0	20.5	16.5	27.0	17.5	27.5	14.0	27.5	18.5	20.0	12.5
20	16.0	6.5	22.0	14.5	25.0	19.0	24.5	17.0	25.0	19.0	20.0	13.5
21	20.5	3.0	19.0	14.0	24.5	17.0	28.0	17.0	26.0	18.5	19.0	13.5
22	22.5	3.5	20.0	12.5	26.5	16.0	30.5	16.5	22.5	19.5	19.0	12.0
23	24.5	6.5	22.0	12.5	25.5	17.5	29.0	17.5	19.5	16.5	19.0	11.5
24	24.0	7.5	20.5	13.5	26.0	18.0	31.0	17.0	23.0	16.0	19.0	11.5
25	26.0	9.0	19.5	13.0	25.0	18.0	30.0	17.5	22.5	17.0	16.5	11.5
26	27.5	9.0	20.5	12.5	24.0	18.0	31.0	17.5	20.5	16.5	18.5	10.5
27	22.0	11.0	21.0	12.0	27.0	18.0	31.0	18.0	21.0	16.0	19.0	12.0
28	26.5	9.0	18.0	12.0	24.0	17.5	30.0	18.0	23.5	14.0	20.0	11.0
29	25.0	10.5	20.0	11.5	21.5	18.0	30.5	18.5	24.0	15.0	20.0	10.0
30	27.5	10.0	22.0	12.5	22.5	16.5	28.5	17.5	22.5	14.5	19.5	9.0
31	---	---	25.0	14.5	---	---	28.5	20.0	24.5	15.0	---	---
MONTH	27.5	1.0	26.5	4.0	28.5	10.5	31.5	13.0	28.0	14.0	25.5	9.0

07126200 VAN BREMER ARROYO NEAR MODEL, CO

LOCATION.--Lat 37°20'45", long 103°57'27", in sec.13, T.31 S., R.59 W., Las Animas County, Hydrologic Unit 11020010, on right bank 3 mi upstream from mouth, 16 mi east of Model, and 33 mi northeast of Trinidad.

DRAINAGE AREA.--175 mi² of which 11.8 mi² is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1966 to current year.

REVISIONS.--WDR CO-84-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 4,960 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 17 to Jan. 29, and Sept. 27-30. Records good except for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--21 years, 2.43 ft³/s; 1,760 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,240 ft³/s, May 26, 1967, gage height, 9.4 ft, from floodmarks, from rating curve extended above 65 ft³/s, on basis of slope-area measurement of peak flow; maximum gage height, 9.98 ft, Aug. 9, 1979 from floodmark; no flow, June 7-13, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Aug. 9	0845	*673	*4.49	No other peak greater than base discharge.			

Minimum daily, 0.08 ft³/s, July 22-29, and Aug. 2-4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	.22	.35	.20	6.0	.12	.17	.23	.97	5.2	.10	3.6
2	2.7	.23	.30	.20	2.8	.12	.17	.23	.51	15	.08	2.3
3	3.7	.23	.24	.20	1.7	.12	.17	.26	.35	2.2	.08	1.3
4	3.9	.38	.23	.20	.90	.12	.17	.57	.29	.52	.08	.61
5	1.8	.39	.23	.20	.51	.11	.17	.74	.21	.25	1.5	.38
6	.77	.27	.23	.20	.31	.10	.17	4.6	.20	.19	3.6	.27
7	.38	.22	.23	.20	.26	.10	.17	2.7	.20	.16	4.8	.22
8	.26	.19	.23	.20	.23	.10	.17	1.7	.18	.12	5.7	3.1
9	.23	.17	.23	.20	.21	.10	.17	.89	.17	.12	70	2.2
10	.22	.17	.23	.20	.20	.11	.19	.51	.17	.12	9.6	.31
11	.20	.17	.23	.20	.20	.12	.21	.38	.17	.12	9.9	.19
12	.19	.17	.23	.20	.20	.12	.20	10	.17	.12	6.8	.17
13	.17	.17	.23	.20	.20	.12	.22	13	2.4	.12	8.4	.14
14	.14	.17	.23	.20	.21	.12	.23	10	3.6	.12	9.3	.14
15	.14	.17	.23	.20	.23	.10	.21	9.0	3.8	.13	8.0	.14
16	.17	.17	.23	.20	.23	.10	.22	9.1	4.3	.17	7.3	.13
17	.15	.17	.23	.20	.23	.10	.23	7.3	.48	.13	4.9	.19
18	.14	.17	.20	.20	.22	.11	.23	7.3	3.0	.10	6.9	.22
19	.14	.17	.20	.20	.18	.12	.23	13	2.0	.10	9.3	.74
20	.87	.17	.20	.20	.17	.11	.23	5.9	2.1	.10	9.5	.49
21	10	.17	.20	.20	.17	.11	.23	7.7	2.2	.10	6.1	.73
22	4.9	.17	.20	.20	.17	.12	.23	11	.60	.08	5.2	.52
23	2.1	.17	.20	.20	.17	.19	.23	7.9	.27	.08	4.6	.38
24	.85	.17	.20	.20	.17	.20	.23	7.1	.19	.08	6.9	1.7
25	.41	.17	.20	.20	.17	.20	.23	5.3	.25	.08	9.7	.94
26	.30	.17	.20	.20	.17	.18	.23	2.8	2.9	.08	8.7	.45
27	.24	.17	.20	.20	.15	.17	.23	1.8	2.5	.08	14	1.5
28	.21	.17	.20	.20	.13	.17	.23	2.6	2.2	.08	11	.80
29	.20	.17	.20	.20	---	.17	.23	3.3	2.4	.08	12	.40
30	.20	.22	.20	.63	---	.17	.23	3.0	1.2	.09	9.4	.30
31	.20	---	.20	2.5	---	.17	---	2.0	---	.10	5.3	---
TOTAL	37.58	5.92	6.91	8.93	16.49	4.07	6.23	151.91	39.98	26.02	268.74	24.56
MEAN	1.21	.20	.22	.29	.59	.13	.21	4.90	1.33	.84	8.67	.82
MAX	10	.39	.35	2.5	6.0	.20	.23	13	4.3	15	70	3.6
MIN	.14	.17	.20	.20	.13	.10	.17	.23	.17	.08	.08	.13
AC-FT	75	12	14	18	33	8.1	12	301	79	52	533	49

CAL YR 1986 TOTAL 724.34 MEAN 1.98 MAX 172 MIN .06 AC-FT 1440
WTR YR 1987 TOTAL 597.33 MEAN 1.64 MAX 70 MIN .08 AC-FT 1180

07126200 VAN BREMER ARROYO NEAR MODEL, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1983 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1983 to current year.
WATER TEMPERATURE: January 1983 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Daily specific conductance and water temperature data from 1983 to 1987 are published in this report. Daily data that are not published are either missing or of poor quality. Daily maximum and minimum specific conductance data are available in the district office..

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 8,860 microsiemens May 13, 1987;minimum, 130 microsiemens Aug. 22, 1984.
WATER TEMPERATURE: Maximum, 34.0°C June 15,28, 1986; minimum, 0.0°C Nov. 26-27, 1983, Jan. 14, Feb. 17, 1984, Dec 23, 25-26, 1985.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 8,860 microsiemens May 13; minimum 340 microsiemens July 1.
WATER TEMPERATURE: Maximum, 31.0°C July 31; minimum, for period of recorded data 1.0°C Mar. 23.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
JAN											
29...	1440	0.23	1870	4.5	140	71	160	3	1.1	253	770
MAR											
12...	1240	0.13	2150	12.0	160	89	210	3	12	260	900
MAY											
15...	1220	12	3470	20.0	160	110	480	7	19	216	1500
JUL											
30...	1125	0.10	1950	24.5	170	82	180	3	12	230	800
AUG											
09...	1710	33	680	21.0	86	15	24	0.7	9.3	93	260
09...	1740	30	--	21.0	88	15	25	0.7	9.2	79	250

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHOROUS DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
JAN										
29...	29	0.9	7.6	1330	1.97	0.90	<0.10	0.48	20	100
MAR										
12...	54	1.0	5.0	1590	2.35	0.61	<0.10	0.01	260	120
MAY										
15...	180	0.5	13	2590	3.66	87.2	0.11	0.02	280	90
JUL										
30...	43	0.8	11	1440	2.09	0.42	<0.10	<0.01	26	200
AUG										
09...	8.9	0.3	7.6	467	0.63	41.6	0.30	0.03	8	20
09...	9.2	0.3	7.9	452	0.62	37.0	0.27	0.02	12	23

07126200 VAN BREMER ARROYO NEAR MODEL, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				---	1820	1790	1870	1920	1980	1900	1880	
2				---	1830	1790	1900	1910	1970	1880	1920	
3				---	1860	1810	1940	1960	1960	1890	1920	
4				---	1830	1840	1910	1970	1950	1890	1930	
5				---	1850	1850	1890	1980	1930	1880	1920	
6				---	1880	1880	1920	1980	1780	1880	1910	
7				---	1890	1900	1930	1980	1850	1890	1900	
8				---	1880	1900	1940	1990	1820	1890	1880	
9				---	1900	1900	1930	2000	1810	1890	1880	
10				---	1910	1900	1920	2000	1800	1890	1870	
11				---	1920	1900	1930	2000	1800	1870	1850	
12				---	1920	1910	1940	2000	1810	1840	1850	
13				---	1890	1920	1910	1980	1770	1860	1850	
14				---	1880	1930	1900	1990	1780	1900	1820	
15				1930	1850	1910	1940	2030	1780	1890	1940	
16				1930	1830	1910	1950	2030	1820	1880	1920	
17				1920	1800	1920	1950	2020	1830	1880	1900	
18				1920	1760	1920	1950	2010	1830	1890	1880	
19				1910	1740	1920	1950	2000	1840	1880	1760	
20				1870	1660	1910	1960	1930	1840	1870	1010	
21				1850	1720	1920	1960	2030	1840	1870	1010	
22				1870	1730	1920	1870	2000	1840	1860	1090	
23				1850	1760	1920	1920	2000	1840	1840	1090	
24				1850	1770	1920	1900	2000	1830	1850	1180	
25				1860	1790	1920	1860	1990	1840	1870	1350	
26				1880	1790	1930	1850	1990	1830	1870	---	
27				1880	1800	1930	1850	1980	1840	1900	---	
28				1870	1790	1930	1870	1960	1880	1940	---	
29				1870	---	1930	1880	1970	1910	1920	---	
30				1850	---	1930	1910	1940	1910	1910	---	
31				1830	---	1940	---	1950	---	1880	---	
MEAN				1880	1820	1900	1910	1980	1850	1880	1700	

WTR YR 1983 MEAN 1870 MAX 2030 MIN 1010

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1							---	---	5.5	2.5	12.5	7.0
2							---	---	7.0	2.0	11.5	7.0
3							---	---	4.5	1.5	13.5	7.0
4							---	---	5.5	3.0	13.5	8.5
5							---	---	6.5	2.0	10.0	7.0
6							---	---	6.0	2.0	13.0	5.5
7							---	---	5.5	2.0	13.0	6.0
8							---	---	6.5	3.0	13.5	7.0
9							---	---	7.0	2.5	15.0	7.0
10							---	---	9.0	2.5	16.0	7.0
11							---	---	9.0	2.5	15.5	8.5
12							---	---	9.5	3.0	14.5	9.0
13							---	---	7.5	3.5	16.5	8.0
14							6.5	3.5	8.0	3.5	13.5	10.0
15							7.0	2.5	9.5	4.0	10.5	5.5
16							7.0	3.0	11.0	3.5	8.5	4.5
17							6.5	3.0	10.5	5.5	8.5	5.0
18							6.0	3.5	11.5	4.0	6.5	4.0
19							8.0	3.0	9.0	4.5	8.0	3.0
20							5.0	2.0	5.5	.5	10.0	3.0
21							5.5	2.0	9.5	2.5	12.0	4.0
22							5.5	1.5	10.5	1.5	9.0	5.5
23							5.5	2.0	12.0	3.5	13.0	5.5
24							6.0	3.0	11.0	4.5	15.0	7.5
25							5.0	3.5	13.0	5.0	10.5	6.5
26							7.5	2.5	13.0	6.5	7.5	5.0
27							6.0	2.0	13.5	6.5	12.5	3.5
28							8.5	3.0	13.5	6.5	11.0	5.5
29							7.0	2.5	---	---	14.0	7.0
30							8.0	3.0	---	---	15.5	7.0
31							5.5	3.0	---	---	17.0	8.5
MONTH							8.5	1.5	13.5	.5	17.0	3.0

07126200 VAN BREMER ARROYO NEAR MODEL, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.0	6.5	21.0	11.0	24.5	10.5	27.5	18.0	27.0	20.5		
2	14.5	5.5	15.5	12.0	25.5	15.5	25.0	18.5	29.0	20.5		
3	14.0	6.5	20.5	10.0	25.5	15.0	28.5	18.0	29.0	21.5		
4	6.5	4.0	22.0	12.0	25.0	16.0	27.5	19.5	29.0	22.0		
5	10.0	2.5	22.5	12.5	21.0	16.0	26.5	18.0	29.5	22.0		
6	13.0	3.5	19.5	11.5	23.5	15.0	28.0	18.5	29.5	21.5		
7	13.5	4.5	21.5	10.5	26.0	15.5	30.0	19.5	29.0	21.5		
8	15.0	5.0	22.0	12.5	22.5	16.5	29.5	19.5	29.0	21.5		
9	15.5	7.0	21.0	12.0	23.0	15.5	30.5	20.5	29.0	20.5		
10	17.0	7.5	23.0	13.0	17.5	15.0	30.0	21.0	28.0	20.0		
11	17.0	9.0	21.5	14.0	27.5	16.0	24.0	20.5	28.0	20.5		
12	14.5	7.5	20.5	12.5	26.5	17.0	25.5	18.5	28.5	21.0		
13	12.0	4.5	14.5	10.0	21.0	16.0	27.0	18.5	29.5	21.5		
14	14.5	5.0	14.5	9.5	25.0	14.0	27.0	19.0	28.5	21.0		
15	17.0	7.5	19.0	10.0	26.5	15.0	26.5	18.5	29.0	21.0		
16	19.0	9.0	19.5	11.0	28.0	17.5	27.5	19.0	29.5	21.0		
17	19.0	9.0	15.5	10.0	28.0	18.0	27.5	20.5	28.5	20.5		
18	19.0	9.5	19.5	9.0	28.0	18.5	29.0	19.5	28.5	20.0		
19	20.5	10.0	20.5	12.0	28.0	18.5	29.5	20.5	28.0	19.5		
20	20.0	11.5	15.0	12.5	27.5	18.0	29.0	20.0	23.5	19.5		
21	19.0	12.0	22.5	10.0	28.0	18.0	30.0	20.5	27.0	20.0		
22	13.0	11.0	18.0	14.0	28.0	19.0	29.0	21.0	26.0	19.5		
23	18.5	10.5	25.0	13.0	27.5	19.0	28.5	21.0	26.5	18.5		
24	22.0	11.0	26.0	15.0	27.0	19.0	30.0	21.5	26.5	19.0		
25	22.0	12.0	25.0	16.5	25.5	19.0	28.5	21.5	23.5	19.5		
26	19.0	12.5	27.0	16.5	22.5	19.0	29.0	20.5	---	---		
27	21.5	11.5	24.5	17.0	25.5	18.0	29.5	21.0	---	---		
28	21.5	12.0	24.0	15.0	25.0	18.0	27.5	20.5	---	---		
29	23.0	14.0	26.0	15.5	27.5	17.5	29.5	20.0	---	---		
30	22.0	13.0	19.5	14.0	27.5	18.0	28.5	21.0	---	---		
31	---	---	14.5	12.5	---	---	26.5	21.0	---	---		
MONTH	23.0	2.5	27.0	9.0	28.0	10.5	30.5	18.0	29.5	18.5		
YEAR	30.5	.5										

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	1810	1990	1680	1870	1820	1820	2080	2010	1920	1590	1370
2	---	1810	2000	1760	1880	1830	1850	2080	2010	1910	1550	1370
3	---	1810	1990	1930	1890	1810	1870	2080	2010	1910	1540	1370
4	---	1810	1980	1900	1870	1770	1870	2070	2020	1900	1550	1380
5	---	1800	1990	1920	1860	1770	1890	2060	2010	1890	1580	1400
6	---	1800	2030	1980	1850	1790	1900	2060	2000	1890	1590	1410
7	---	1810	1970	1970	1850	1790	1910	2070	2010	1890	1580	1430
8	---	1810	1970	1960	1830	1790	1930	2080	2000	1880	1590	1460
9	---	1820	1980	1980	1840	1790	1940	2070	1990	1870	1610	1460
10	---	1820	1960	1970	1830	1780	1960	2070	1990	1420	1640	1470
11	---	1820	1970	1960	1830	1800	1980	2060	1990	469	1650	1440
12	---	1820	1940	1950	1830	1800	1990	2060	2000	724	1660	1380
13	---	1820	1940	1960	1820	1800	2000	2050	1990	939	1650	929
14	---	1820	1930	1960	1820	1790	2000	2060	1990	1090	1680	872
15	---	1850	1940	2020	1770	1800	2000	2060	2000	1230	1680	808
16	---	1850	2000	2020	1800	1810	2000	2030	2010	1300	1700	755
17	---	1860	2000	2030	1780	1840	2010	2030	2030	1340	1710	780
18	---	1850	2000	2020	1740	1750	2020	2060	1990	1340	1630	743
19	---	1880	2020	2020	1850	1740	2030	2060	2010	1390	1410	751
20	---	1880	2020	2010	1860	1730	2020	2070	2020	1390	1210	---
21	---	1880	1990	1870	1840	1720	2020	2060	1990	1430	1260	---
22	---	1880	1900	1740	1830	1730	2050	2040	1980	1500	962	---
23	---	1880	1870	1750	1850	1720	2060	2040	1940	1540	387	---
24	---	1880	1940	1580	1860	1730	2060	2040	1930	1540	574	---
25	---	1870	1970	1390	1860	1710	2060	2030	1940	1560	725	---
26	---	1870	1880	1320	1830	1770	2050	2010	1940	1560	885	---
27	1830	1900	1840	1890	1850	1760	2040	2020	1920	1560	1030	---
28	1830	1900	1860	1980	1840	1760	2050	2010	1910	1570	1030	---
29	1830	1980	1950	2010	1820	1760	2050	2000	1930	1590	1230	---
30	1820	1970	1940	1930	---	1750	2100	2010	1930	1590	1270	---
31	1810	---	1770	1880	---	1780	---	2020	---	1600	1330	---
MEAN	1820	1850	1950	1880	1840	1770	1980	2050	1980	1510	1370	1190

WTR YR 1984 MEAN 1780 MAX 2100 MIN 387

07126200 VAN BREMER ARROYO NEAR MODEL, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	16.0	10.0	4.0	2.0	2.0	.5	8.0	2.5	8.5	3.0
2	---	---	14.5	9.5	5.0	2.5	2.5	1.0	7.5	2.5	10.5	2.5
3	---	---	15.5	9.5	6.0	2.5	2.0	1.0	7.5	2.5	11.0	4.5
4	---	---	15.0	9.0	7.0	3.0	3.0	1.0	7.0	2.5	6.0	3.5
5	---	---	15.5	10.0	5.5	2.5	3.5	2.0	8.0	2.5	8.5	1.0
6	---	---	15.5	10.5	4.0	1.0	4.0	2.0	8.5	2.5	9.0	2.0
7	---	---	15.5	9.0	6.0	2.5	5.0	2.5	7.5	2.5	11.0	2.5
8	---	---	11.0	8.0	7.0	3.0	5.5	2.5	5.5	3.0	12.0	3.5
9	---	---	10.5	6.5	6.0	2.5	3.0	2.5	7.5	2.5	12.5	5.5
10	---	---	11.0	5.0	7.5	3.0	4.5	2.0	9.0	3.0	12.5	4.5
11	---	---	10.5	5.5	7.0	2.5	5.0	2.0	5.5	3.0	10.5	5.5
12	---	---	12.5	7.0	7.5	3.0	5.0	.5	7.5	2.5	12.5	5.0
13	---	---	12.5	7.0	5.5	3.0	4.0	.5	9.0	2.5	13.5	6.0
14	---	---	10.5	6.5	5.5	2.5	3.0	.0	9.0	3.5	13.5	6.5
15	---	---	10.0	4.0	4.0	2.5	3.0	.5	6.0	2.5	14.5	7.5
16	---	---	10.5	5.0	3.5	1.0	3.5	.5	7.0	2.5	12.5	7.5
17	---	---	10.0	5.5	3.5	1.5	1.5	.5	8.5	.0	13.5	5.5
18	---	---	9.5	6.0	3.0	1.0	1.5	.5	4.0	.5	8.0	.5
19	---	---	8.5	4.5	3.5	1.0	1.0	.5	5.0	1.5	9.0	.5
20	---	---	9.0	2.5	3.0	2.0	1.5	.5	5.5	1.5	12.0	3.0
21	---	---	10.0	5.0	2.0	.5	1.5	.5	7.5	2.0	12.5	4.5
22	---	---	6.0	4.5	2.0	.5	2.5	1.0	8.0	2.5	7.5	4.0
23	---	---	7.0	3.5	2.0	.5	2.5	1.0	8.0	3.5	8.0	3.0
24	---	---	7.5	2.5	2.0	.5	3.5	1.0	8.5	2.5	12.5	2.5
25	---	---	9.5	4.0	1.0	.5	3.5	1.0	9.5	3.0	11.0	6.0
26	---	---	6.5	.0	1.5	.5	4.0	2.0	5.5	2.5	11.0	4.5
27	15.0	8.0	1.5	.0	1.5	.5	4.5	1.5	7.0	1.5	7.0	4.5
28	14.5	10.0	3.5	1.0	1.0	.5	5.5	2.0	8.5	2.5	11.5	3.0
29	14.5	8.0	3.5	2.0	1.0	.5	6.0	2.0	10.5	2.5	13.5	5.0
30	15.5	8.0	4.0	2.5	1.5	.5	6.0	1.0	---	---	8.5	5.5
31	15.5	9.0	---	---	1.5	.5	7.0	2.0	---	---	12.0	4.5
MONTH	15.5	8.0	16.0	.0	7.5	.5	7.0	.0	10.5	.0	14.5	.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.0	5.5	17.5	12.0	24.0	17.0	28.0	20.5	26.0	18.5	23.0	18.0
2	9.5	5.5	17.0	11.0	25.0	16.5	28.5	20.0	28.5	18.5	23.0	17.5
3	11.0	3.5	20.5	9.5	25.0	15.5	28.5	20.0	27.5	18.5	25.0	16.5
4	14.5	4.5	17.5	11.5	24.5	15.5	28.5	20.0	28.0	19.5	25.0	17.0
5	16.0	6.0	17.0	12.0	19.0	16.0	28.5	20.0	26.0	20.0	25.5	17.0
6	16.5	7.5	19.5	11.5	20.5	13.5	28.0	19.0	25.5	19.0	24.0	16.5
7	13.5	9.0	15.0	11.0	23.0	14.5	27.0	19.5	26.0	19.5	23.0	15.0
8	18.0	8.0	20.5	8.5	22.5	14.0	27.5	19.0	24.0	18.5	23.5	15.5
9	15.0	9.0	23.0	10.5	26.0	15.5	29.0	20.0	25.5	17.5	24.0	16.0
10	16.5	8.5	23.5	12.5	24.5	16.0	27.0	8.0	24.5	18.0	23.5	16.0
11	13.5	9.0	23.0	14.0	25.0	16.5	20.0	9.0	25.5	18.0	22.5	16.0
12	17.0	7.0	25.5	14.5	26.5	17.0	25.5	15.5	25.0	18.0	22.0	18.0
13	16.5	8.0	24.0	15.5	24.0	18.0	27.0	17.5	26.0	18.5	22.0	19.0
14	14.5	7.5	24.5	16.0	27.0	16.5	28.0	19.0	27.5	18.5	20.5	12.5
15	15.5	7.0	22.0	15.5	28.5	18.5	28.5	19.5	27.0	19.0	16.5	15.5
16	18.0	7.5	20.0	14.5	27.0	18.5	27.5	19.5	26.5	19.5	18.5	14.0
17	19.0	8.5	18.0	14.5	27.5	17.5	28.0	19.0	27.0	19.0	20.5	17.0
18	15.5	11.0	23.5	14.0	24.5	18.5	28.5	19.5	27.0	19.5	21.0	16.0
19	17.0	9.5	23.0	14.5	27.0	17.0	28.5	18.5	26.0	20.5	20.5	16.5
20	12.0	6.0	26.0	14.5	28.5	18.0	28.5	18.5	27.0	20.0	20.5	16.5
21	9.0	5.5	26.5	16.0	28.0	19.0	27.0	19.5	27.0	19.5	19.5	17.0
22	13.5	5.5	25.5	16.5	29.0	19.0	27.0	18.0	25.0	18.0	19.0	14.0
23	19.0	6.5	26.0	15.5	23.0	19.0	28.5	18.0	20.5	17.0	19.5	13.5
24	19.0	10.0	23.5	17.5	27.5	18.5	27.0	20.0	23.5	18.5	19.5	16.0
25	19.0	9.5	24.5	16.0	28.0	18.5	27.5	18.0	25.0	19.0	16.5	13.5
26	12.0	7.0	24.5	14.5	28.0	19.0	25.5	17.5	26.0	18.5	14.0	11.5
27	16.5	5.0	25.5	15.5	28.0	20.0	26.5	18.5	26.5	18.0	16.0	11.5
28	15.0	7.5	24.5	16.0	27.5	18.5	26.5	19.5	27.0	18.5	13.5	8.0
29	14.5	8.0	25.0	12.0	29.0	19.0	27.5	18.5	26.5	18.5	9.0	6.5
30	18.5	8.0	27.0	16.0	28.5	19.5	26.5	19.0	27.0	18.5	11.5	6.5
31	---	---	25.0	17.0	---	---	24.5	19.0	25.0	18.5	---	---
MONTH	19.0	3.5	27.0	8.5	29.0	13.5	29.0	8.0	28.5	17.0	25.5	6.5
YEAR	29.0	.0										

07126200 VAN BREMER ARROYO NEAR MODEL, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	2100	2000	1850		---	2030	1850	1760	1930	2030	1980
2	---	2090	2010	1960		---	2010	1840	1770	1910	2070	2000
3	824	2090	2020	1900		---	2000	1830	1770	1910	2080	1980
4	813	2080	2010	1890		---	2000	1820	1780	1910	2080	2000
5	923	2080	2040	1930		---	1990	1800	1930	1910	2080	2020
6	1000	2070	2040	1950		---	2000	1790	2000	1910	2060	2040
7	919	2070	2010	1950		1780	1990	1800	2000	1910	2040	2140
8	957	2070	2010	1950		1820	1960	1800	1970	1900	2020	2420
9	1070	2070	2030	1940		1830	1950	1800	1930	1890	2020	1610
10	1120	2060	2020	2000		1840	1970	1820	1900	1890	2000	1230
11	1180	2050	1990	1980		1880	1970	1810	2440	1910	2000	1140
12	1240	2050	1980	1970		1900	1940	1770	1560	1920	2020	1080
13	1320	2040	1930	1990		1910	1930	1790	1330	1900	2020	1070
14	1370	2040	1940	1990		1930	1930	2040	1150	1870	2000	1140
15	1430	2040	1920	1980		1920	1930	2220	1150	1910	1980	1240
16	1470	2030	1930	1970		1920	1900	1690	1140	1890	2000	1160
17	1520	2030	1930	2000		1940	1910	1690	1080	1910	2020	1040
18	1690	2030	1940	2000		1940	1910	1100	1160	1920	2000	983
19	1730	2040	1960	2000		1940	1900	1050	1670	1900	2000	984
20	1810	2030	1980	---		1960	1890	1040	1370	2020	2000	998
21	1970	2010	1980	---		1980	1880	1100	1490	2390	2000	1020
22	2070	2010	1990	---		1980	1880	1180	1460	2390	2000	1060
23	2100	2010	1990	---		1960	1910	1270	1460	2210	1970	1050
24	2120	2000	2010	---		2020	1900	1310	1500	2280	2010	1030
25	2120	2010	2020	---		2040	1870	1420	1750	2190	2020	1050
26	2130	1970	2010	---		2040	1840	1490	1850	2200	2010	1120
27	2130	2010	2000	---		2050	1860	1570	1870	2160	2000	1090
28	2130	2000	1950	---		2020	1870	1650	1880	2090	2020	1140
29	2110	2010	1910	---		2020	1810	1730	1890	2060	2010	1180
30	2100	2010	1890	---		2000	1850	1750	1930	2080	2000	1170
31	2110	---	1850	---		2020	---	1730	---	2070	1990	---
MEAN	1520	2040	1980	1960		1950	1930	1630	1660	2010	2020	1370

WTR YR 1985 MEAN 1820 MAX 2440 MIN 773

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.0	9.5	12.5	7.5	7.0	3.0	4.5	2.5			---	---
2	15.0	11.5	13.0	7.0	6.0	3.0	5.0	2.0			---	---
3	15.0	13.5	13.0	7.0	5.0	2.5	5.0	3.5			---	---
4	14.0	11.5	12.0	6.5	5.0	3.0	6.0	4.0			---	---
5	14.5	11.0	10.5	5.5	5.0	2.5	6.5	3.5			---	---
6	16.0	12.0	9.5	6.5	6.0	2.5	6.5	3.5			11.5	2.5
7	16.0	11.5	12.0	5.5	6.5	2.0	6.5	3.5			11.5	2.5
8	15.5	13.5	10.5	6.0	7.5	3.5	5.5	4.0			12.0	1.0
9	15.5	12.5	9.0	5.5	8.5	4.0	4.5	2.0			13.0	2.5
10	16.0	13.0	9.0	4.0	7.0	3.5	4.5	2.5			14.5	2.5
11	16.0	13.0	9.5	5.0	7.0	5.0	3.5	2.5			12.5	2.5
12	16.5	13.0	11.0	5.5	5.0	4.0	4.0	3.0			11.0	2.0
13	16.0	13.0	10.0	5.5	4.5	3.0	3.5	2.5			13.5	5.0
14	13.0	9.0	10.5	6.0	5.0	3.0	3.5	2.5			13.0	5.0
15	10.0	7.5	8.5	4.5	6.0	3.0	4.0	2.5			12.5	7.0
16	8.0	5.0	8.0	4.0	6.0	2.5	4.5	3.0			9.5	2.5
17	9.5	5.0	9.0	6.0	5.5	3.5	4.5	3.0			14.0	5.0
18	10.0	7.5	9.0	4.5	5.0	3.0	---	---			14.5	2.5
19	9.5	6.5	8.5	4.0	6.0	3.5	5.0	2.0			10.0	3.0
20	8.0	6.5	8.5	3.0	6.0	3.5	---	---			14.0	2.5
21	9.0	6.0	8.5	3.0	5.5	2.5	---	---			14.0	2.5
22	8.0	6.0	7.5	4.5	5.5	3.5	---	---			13.5	7.5
23	8.5	6.0	8.5	4.5	6.5	2.5	---	---			13.5	5.5
24	8.5	6.0	9.0	6.0	4.0	3.0	---	---			15.5	7.0
25	12.0	6.5	9.0	4.5	4.5	3.0	---	---			15.0	7.5
26	13.0	7.0	4.5	2.0	6.5	3.5	---	---			15.5	9.0
27	13.0	8.0	5.0	2.5	7.5	4.0	---	---			13.5	7.0
28	12.5	7.0	7.0	3.0	8.5	6.0	---	---			12.5	7.0
29	14.0	7.0	6.0	3.5	7.0	4.5	---	---			11.0	6.5
30	13.0	8.0	6.5	2.5	6.0	3.5	---	---			---	---
31	13.5	7.5	---	---	5.5	3.5	---	---			12.5	2.5
MONTH	16.5	5.0	13.0	2.0	8.5	2.0	6.5	2.0			15.5	1.0

07126200 VAN BREMER ARROYO NEAR MODEL, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.5	5.5	23.0	13.0	26.0	15.0	25.5	17.0	25.5	20.0	24.5	19.0
2	17.0	2.5	23.5	15.0	25.0	15.0	27.0	17.0	25.5	19.5	22.5	19.5
3	17.0	8.5	25.0	16.0	21.0	15.0	27.5	17.0	24.5	20.0	23.5	17.5
4	15.0	2.5	23.5	16.0	18.0	15.0	26.0	18.5	25.5	19.5	21.0	17.5
5	16.0	5.5	22.5	15.5	22.5	15.0	26.0	17.5	25.5	19.5	22.5	17.0
6	17.5	3.0	20.5	16.0	27.0	15.5	27.5	19.0	26.0	20.0	23.0	15.5
7	17.5	9.5	25.0	15.5	27.5	17.0	27.5	19.5	25.5	19.5	22.0	17.0
8	15.5	9.5	25.5	16.0	28.0	18.5	27.0	20.0	25.0	19.0	20.5	17.0
9	14.5	10.5	23.0	16.0	25.0	19.5	26.0	20.0	25.5	19.0	21.0	17.0
10	19.5	9.5	23.5	16.0	25.0	17.0	28.0	20.0	24.5	18.5	21.0	19.0
11	20.5	10.5	21.0	11.0	23.0	18.5	28.0	20.0	24.5	19.5	20.0	17.0
12	18.0	11.0	17.0	15.0	22.5	19.0	27.5	20.0	26.0	18.5	21.0	17.0
13	20.5	11.0	15.0	12.5	24.5	18.5	27.5	20.0	24.5	19.0	20.0	17.0
14	21.0	11.0	17.0	11.0	24.0	19.5	27.0	20.0	22.5	19.0	21.0	17.0
15	21.5	11.0	20.0	13.0	25.5	20.0	26.0	20.0	23.0	17.0	21.0	19.0
16	18.5	13.0	18.5	16.0	25.5	20.5	28.0	20.0	24.0	17.0	21.5	18.5
17	20.0	11.5	19.5	16.0	24.0	20.0	28.5	20.0	24.5	17.0	21.0	17.0
18	20.5	13.0	22.0	16.0	22.0	19.5	28.0	21.0	24.0	19.0	19.5	17.0
19	18.0	11.0	19.0	16.0	24.0	19.0	25.5	20.5	25.0	17.0	19.5	16.0
20	20.0	11.0	19.0	15.5	25.0	20.0	25.0	20.0	25.5	19.0	17.5	15.0
21	16.5	11.0	19.0	16.0	24.0	20.5	25.5	20.5	25.5	19.5	15.5	12.5
22	14.0	11.0	18.0	15.5	24.5	19.0	25.5	20.0	25.5	19.5	16.0	14.5
23	20.0	10.0	20.5	15.0	25.0	20.0	25.5	20.0	25.0	19.0	16.0	12.5
24	20.5	11.0	23.0	16.0	25.0	20.0	25.0	20.0	25.5	20.0	15.5	13.5
25	16.5	11.0	23.0	18.0	24.0	20.0	24.5	19.5	26.0	19.5	14.5	10.5
26	13.5	10.5	24.0	18.0	23.5	19.5	24.5	20.0	26.0	20.0	15.5	11.0
27	20.0	10.0	26.5	18.0	25.0	17.0	26.0	19.0	24.5	19.0	16.0	12.0
28	16.0	13.0	25.0	18.0	25.5	17.0	26.0	20.0	25.0	19.0	15.5	12.0
29	19.5	12.5	23.5	19.5	25.0	17.5	26.0	20.0	25.5	19.5	11.5	7.0
30	18.0	13.5	24.5	18.0	23.5	17.0	26.0	20.0	25.5	19.5	10.0	7.0
31	---	---	22.0	17.0	---	---	26.5	20.0	25.5	19.5	---	---
MONTH	21.5	2.5	26.5	11.0	28.0	15.0	28.5	17.0	26.0	17.0	24.5	7.0
YEAR	28.5	1.0										

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1080	1800	---	1930	1900	1940	1940	2030	1640	1210	1460	1610
2	1060	1790	---	1950	1870	1950	1970	1950	1910	1010	1420	1870
3	1060	1780	1840	1940	1860	1950	1970	2000	1520	968	1440	1840
4	1070	1800	1920	1930	1850	1940	1970	2040	2200	1060	1590	1620
5	1020	1800	1910	2000	1860	1940	1980	1990	3780	1170	1360	1570
6	975	1870	1940	1950	1870	1950	1980	2130	4090	1260	1350	1530
7	953	1870	2120	1980	1870	1980	2000	2680	3850	1310	1400	1530
8	966	1870	2110	2060	1920	1970	1990	3100	3320	1360	1450	1500
9	1030	1880	---	2040	1910	1980	2000	2860	2070	1360	1410	1530
10	1100	1860	---	2010	1980	1970	1980	2750	2080	1380	2100	1520
11	1050	1880	---	2000	1990	1950	2000	2710	2120	1440	2120	---
12	1300	1860	---	2010	2030	1970	2000	2620	2140	1480	1980	---
13	1200	1820	---	2000	1990	1960	1990	2480	2090	1490	1880	---
14	1240	1830	---	2000	2010	1960	1980	1780	2050	1520	1820	---
15	980	1820	---	1970	2020	1960	1970	1460	2020	1550	963	---
16	1060	1820	---	1960	1970	1960	1980	1430	1980	1570	784	1670
17	1090	1840	---	1930	1930	1960	2010	1410	1950	1590	1110	1670
18	1140	1830	---	1910	1900	---	1960	1400	1940	1610	1220	1680
19	1160	1820	---	1890	1890	1980	1920	1410	1920	1610	1320	1690
20	---	1930	2040	1880	1880	1970	---	1460	1890	1250	1400	1700
21	1310	1950	2030	1880	1880	1960	2000	1540	2280	579	1470	1710
22	1340	1970	2000	1890	1860	1970	2010	1590	2320	803	1370	1710
23	1440	1930	2040	1880	1860	1970	2030	1620	2010	956	545	1710
24	1640	1950	2020	1890	1870	1970	2030	1640	837	1080	648	1710
25	1730	2000	1990	1990	1890	1960	2000	1660	974	1210	772	1710
26	1750	1940	1950	1900	1900	1370	2000	1680	1100	1280	968	1710
27	1770	1920	1920	1900	1920	1970	1980	1700	1190	1310	1170	1700
28	1770	1910	1960	1920	1930	1960	2040	1710	1230	1360	1540	1870
29	1790	1880	1990	1920	---	1990	2020	1710	1260	1400	1490	2030
30	1800	---	1970	1900	---	1990	2010	1720	1260	1430	1530	3380
31	1800	---	1950	1910	---	1940	---	1740	---	1450	1520	---
MEAN	---	---	---	1943	1915	---	---	1935	2034	1292	1374	---
MAX	---	---	---	2060	2030	---	---	3100	4090	1610	2120	---
MIN	---	---	---	1880	1850	---	---	1400	837	579	545	---

07126200 VAN BREMER ARROYO NEAR MODEL, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.5	9.0	13.0	8.5	---	---	4.0	1.0	9.5	3.5	12.5	5.5
2	13.0	9.5	13.0	7.0	---	---	2.5	.5	10.0	5.5	12.5	6.0
3	13.0	10.0	13.5	7.5	---	---	3.0	1.0	8.0	4.0	13.0	8.0
4	12.5	10.0	13.5	7.0	---	---	3.5	.5	8.5	3.0	13.0	6.5
5	12.5	9.5	12.0	8.5	---	---	4.0	1.0	6.5	4.0	12.5	7.0
6	13.0	10.0	12.5	7.0	---	---	4.0	1.0	4.0	2.5	13.5	6.5
7	14.5	10.5	12.0	5.5	---	---	4.5	.5	3.5	1.5	13.0	7.0
8	14.0	12.0	12.0	7.0	---	---	3.5	.5	3.5	1.5	11.5	7.0
9	12.5	10.0	11.0	7.0	---	---	4.0	.5	4.0	2.0	13.5	8.0
10	12.0	9.5	7.0	4.5	---	---	4.5	2.0	4.0	1.5	9.5	7.5
11	14.5	10.0	---	---	---	---	5.0	1.5	3.0	1.5	11.5	6.5
12	14.5	10.0	---	---	---	---	6.0	1.5	3.5	1.5	10.5	8.0
13	13.0	9.5	---	---	---	---	6.5	2.0	4.0	2.0	10.5	7.0
14	10.0	7.0	---	---	---	---	6.0	1.5	5.5	2.5	11.5	5.0
15	11.0	7.0	---	---	---	---	7.0	2.0	6.5	3.0	12.0	5.5
16	12.0	9.0	---	---	---	---	6.5	2.0	8.5	3.0	14.0	7.5
17	13.0	10.5	---	---	---	---	6.0	1.5	10.0	4.0	11.5	7.0
18	12.5	10.0	---	---	---	---	5.5	2.0	9.0	5.0	8.0	5.5
19	12.0	10.0	---	---	---	---	7.5	1.5	9.0	5.5	9.5	4.0
20	13.0	10.0	---	---	3.0	---	6.5	2.0	7.0	4.0	12.5	4.5
21	14.5	10.0	---	---	4.0	1.0	5.5	2.0	8.0	3.0	14.5	5.5
22	14.0	10.5	---	---	4.0	1.0	5.0	1.0	11.5	3.5	16.5	7.5
23	13.0	10.0	---	---	4.0	.0	7.5	1.5	10.5	5.0	17.5	8.5
24	14.0	10.0	---	---	3.0	1.0	7.0	2.5	12.0	5.5	17.5	9.5
25	15.0	10.0	---	---	3.5	.0	5.5	2.0	13.0	6.5	16.5	11.0
26	16.0	10.0	---	---	4.0	.0	5.0	1.5	13.5	7.0	17.0	8.0
27	16.0	10.0	---	---	3.0	.5	7.5	2.0	11.5	8.0	19.0	9.0
28	16.0	10.0	---	---	3.5	.5	8.5	1.5	12.0	5.5	19.0	10.5
29	13.0	10.0	---	---	3.5	.5	9.5	3.0	---	---	19.0	10.5
30	15.0	7.5	---	---	5.0	1.0	10.0	3.5	---	---	17.5	11.0
31	13.0	9.0	---	---	4.0	1.0	9.5	5.0	---	---	20.0	11.0
MONTH	16.0	7.0	---	---	---	---	10.0	.5	13.5	1.5	20.0	4.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	27.5	19.5	23.0	20.5	32.5	21.0	28.0	20.5	21.0	19.0
2	---	---	25.5	20.5	28.5	21.5	30.0	22.0	28.5	19.5	22.5	17.5
3	---	---	28.5	20.5	27.0	18.0	27.5	20.0	26.5	19.5	23.5	17.5
4	---	---	28.0	20.5	27.5	22.5	29.5	20.0	27.0	20.5	25.5	19.0
5	---	---	28.0	19.5	30.5	21.0	27.5	20.5	29.5	20.0	25.5	18.5
6	---	---	26.5	19.5	30.5	21.0	28.5	18.0	29.0	20.5	19.5	16.0
7	---	---	24.5	21.0	31.5	22.0	27.5	19.5	30.0	21.0	21.0	14.5
8	---	---	23.0	19.5	29.0	22.0	25.0	19.5	32.0	21.5	24.0	14.5
9	---	---	22.5	18.5	27.0	20.5	25.5	19.5	30.5	21.0	22.0	15.5
10	---	---	25.5	19.0	24.0	19.0	28.5	19.0	28.5	24.0	21.0	---
11	---	---	27.0	19.5	30.5	21.5	28.0	18.5	30.5	21.5	---	---
12	---	---	27.5	19.0	32.5	22.5	27.5	20.0	33.0	22.5	---	---
13	---	---	25.5	14.5	29.5	23.5	26.5	20.5	32.0	23.5	---	---
14	---	---	24.0	18.0	31.5	22.5	29.5	19.5	28.0	23.5	---	---
15	---	---	24.5	20.5	34.0	23.0	28.0	20.5	27.0	22.0	---	---
16	---	---	22.0	18.5	31.5	24.0	28.5	20.0	30.5	22.5	21.0	---
17	---	---	20.0	17.0	32.5	24.0	29.0	20.5	31.5	23.5	21.0	13.5
18	---	---	24.5	17.0	32.0	24.0	28.5	21.0	32.5	23.5	18.0	13.0
19	---	---	25.5	19.0	31.5	24.5	28.0	21.0	31.0	---	19.0	13.0
20	---	---	27.5	19.5	32.0	24.5	25.5	21.0	29.0	22.0	19.5	14.0
21	---	---	26.5	20.5	32.5	25.5	24.5	20.0	31.0	22.0	20.0	15.0
22	---	---	---	17.5	30.5	25.0	27.0	21.0	28.5	22.5	18.5	14.5
23	---	---	19.5	15.0	31.5	21.5	30.0	20.5	27.0	17.0	17.5	14.0
24	---	---	22.5	13.5	24.5	19.5	29.5	20.5	25.0	19.0	16.5	11.5
25	---	---	24.0	15.0	30.0	20.0	27.5	21.0	25.0	21.0	16.5	10.0
26	24.0	17.5	23.5	15.5	31.0	20.0	27.5	19.0	23.0	20.5	16.5	10.5
27	24.0	17.0	22.0	14.5	32.5	19.5	29.0	19.5	22.5	18.5	16.5	10.0
28	27.0	17.5	20.5	15.0	34.0	24.0	29.0	19.0	22.0	18.0	13.5	11.5
29	27.5	19.5	20.5	15.5	29.5	21.0	29.0	19.5	21.5	18.0	13.5	11.0
30	27.5	20.0	27.0	15.0	31.5	20.5	29.5	20.5	23.0	19.0	17.0	11.0
31	---	---	24.5	22.0	---	---	29.5	21.0	23.5	19.0	---	---
MONTH	---	---	---	13.5	34.0	18.0	32.5	18.0	33.0	---	---	---

07126200 VAN BREMER ARROYO NEAR MODEL, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3060	2590	2050	2080	1730	2140	1990	2070	4330	2290	2160	1740
2	2590	2580	2010	2060	---	2130	1990	2070	4200	1190	2170	1720
3	2180	2440	2000	2080	---	2130	2000	2030	4180	1940	2170	1730
4	1990	2300	2000	2060	---	2130	2000	2000	4040	2050	2170	1750
5	1950	2270	2000	2030	---	2140	2000	2050	3940	2540	2510	1770
6	1930	2200	2000	1990	---	2140	2010	2420	3780	2510	3560	1790
7	1850	2190	1980	1930	---	2140	2010	3400	3620	2450	3350	1800
8	1820	2170	1980	1900	---	2130	2020	3600	3480	2340	2720	1620
9	1780	2190	1960	1900	---	2130	2030	3410	3310	2280	1330	1140
10	1780	2190	2000	1900	---	2120	2030	3390	3410	2240	851	1170
11	1730	2190	2030	1900	---	2130	2030	3300	3500	2190	1470	1170
12	1720	2190	2020	1920	---	2120	2020	6490	3410	2100	1970	1210
13	1760	2210	2040	1940	---	2110	2030	5910	3940	2080	1700	1250
14	1750	2200	2050	1930	---	2100	2060	3900	---	2090	1560	1310
15	1750	2190	2070	1910	---	2090	2050	3280	---	2090	1450	1340
16	1750	2160	2090	1940	---	2090	2050	2990	---	2030	1470	1390
17	1760	2120	2080	1950	---	2080	2060	2700	---	1880	1310	1370
18	1770	2090	2070	1940	2190	2100	2070	2710	3520	1980	1220	1190
19	1770	2060	2070	1950	2180	2090	2060	2780	2220	2040	1260	1320
20	1680	2050	2060	1990	2190	2080	2050	2390	2040	2060	1710	1540
21	1950	2030	2050	2000	2200	2070	2060	2170	3020	2040	1820	1750
22	1780	2050	2050	1990	2200	2050	2060	2460	3320	2040	1880	2010
23	1380	2060	2050	1970	2190	2040	2070	2410	2990	2030	1940	2100
24	1830	2060	2050	1960	2190	2030	2080	3570	2850	2030	2170	2190
25	2310	2040	2060	1970	2180	2060	2080	3620	2770	2020	2220	2520
26	2600	2040	2060	1900	2170	2040	2080	3580	2870	2020	2210	3070
27	2690	2030	2060	1810	2160	2020	2060	3510	2630	2010	1780	---
28	2650	2020	2060	1800	2140	2000	2070	3540	2730	2000	1520	---
29	2720	2020	2070	1800	---	2010	2090	3470	3360	1990	1850	---
30	2680	2000	2080	1790	---	2000	2080	3600	2850	2000	1860	---
31	2640	---	2100	1730	---	2000	---	4090	---	2110	1810	---
MEAN	2052	2164	2040	1936	---	2085	2043	3191	---	2086	1909	---
MAX	3060	2590	2100	2080	---	2140	2090	6490	---	2540	3560	---
MIN	1380	2000	1960	1730	---	2000	1990	2000	---	1190	851	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.5	14.5	---	---	---	---	---	---	---	---	10.0	2.5
2	18.0	15.0	---	---	---	---	---	---	---	---	10.5	3.5
3	17.0	16.5	---	---	---	---	---	---	---	---	11.5	4.0
4	18.5	15.5	---	---	---	---	---	---	---	---	12.5	4.5
5	19.0	15.5	---	---	---	---	---	---	---	---	13.5	5.5
6	20.0	15.5	---	---	---	---	---	---	---	---	13.5	5.5
7	20.0	15.5	---	---	---	---	---	---	---	---	13.5	6.5
8	21.0	15.5	---	---	---	---	---	---	---	---	9.0	6.0
9	18.5	16.0	---	---	---	---	---	---	---	---	7.0	5.0
10	19.0	14.5	---	---	---	---	---	---	---	---	9.0	4.0
11	17.0	12.5	---	---	---	---	---	---	---	---	11.0	4.0
12	12.5	10.5	---	---	---	---	---	---	---	---	14.5	5.5
13	16.0	8.5	---	---	---	---	---	---	---	---	14.5	6.0
14	17.0	10.5	---	---	---	---	---	---	---	---	13.0	6.5
15	17.5	11.0	---	---	---	---	---	---	---	---	11.0	6.5
16	17.5	12.0	---	---	---	---	---	---	---	---	12.5	6.5
17	18.5	12.0	---	---	---	---	---	---	---	---	9.5	6.0
18	19.0	12.0	---	---	---	---	---	---	---	---	14.0	5.5
19	17.5	14.5	---	---	---	---	---	---	5.0	3.0	11.5	7.0
20	15.5	13.5	---	---	---	---	---	---	5.0	2.0	11.5	6.0
21	15.5	13.0	---	---	---	---	---	---	7.0	2.0	13.0	4.5
22	14.5	12.0	---	---	---	---	---	---	7.5	2.0	11.0	4.5
23	15.5	13.0	---	---	---	---	---	---	8.0	3.0	10.5	1.0
24	17.0	14.0	---	---	---	---	---	---	8.0	3.0	10.0	3.5
25	16.5	13.0	---	---	---	---	---	---	8.5	3.0	12.5	4.5
26	17.5	12.5	---	---	---	---	---	---	8.0	5.0	14.5	5.0
27	18.0	12.0	---	---	---	---	---	---	8.0	4.0	8.5	3.5
28	19.0	13.0	---	---	---	---	---	---	8.0	2.5	8.0	1.5
29	---	---	---	---	---	---	---	---	---	---	8.5	2.0
30	---	---	---	---	---	---	---	---	---	---	11.0	2.0
31	---	---	---	---	---	---	---	---	---	---	15.0	4.5
MONTH	---	---	---	---	---	---	---	---	---	---	15.0	1.0

07126200 VAN BREMER ARROYO NEAR MODEL, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.5	6.5	22.5	14.0	25.0	17.5	28.5	10.0	30.5	22.0	24.0	19.0
2	13.5	6.0	22.0	13.5	26.5	18.0	23.5	15.0	30.0	21.0	24.5	19.5
3	15.5	5.5	15.0	9.0	20.0	17.0	26.5	20.5	29.0	22.0	25.5	19.0
4	12.0	7.0	11.0	8.5	26.5	14.5	28.0	20.0	27.0	21.0	23.5	19.5
5	10.0	6.0	14.5	10.0	25.0	17.0	29.5	18.5	27.5	19.0	24.5	18.0
6	13.0	6.0	15.0	11.5	27.5	17.0	28.0	19.0	27.5	22.0	24.0	17.0
7	13.0	6.5	17.5	11.5	28.5	17.5	29.0	19.0	27.0	23.0	24.0	17.0
8	17.5	6.0	21.5	13.5	26.0	18.5	28.5	19.0	25.5	22.5	25.0	13.0
9	17.5	8.5	24.0	15.0	22.0	18.5	28.0	20.0	23.5	18.5	19.0	12.0
10	19.0	9.5	25.5	15.5	26.0	17.0	28.0	18.5	25.5	20.0	23.5	14.5
11	16.5	9.5	25.0	15.5	28.5	17.0	28.5	18.5	26.0	22.0	25.5	15.5
12	12.5	8.0	20.0	17.0	28.5	19.0	24.5	19.5	24.0	22.5	25.0	16.0
13	10.5	5.5	22.0	16.0	25.0	20.0	27.5	16.5	26.0	21.5	25.0	16.0
14	15.5	5.0	21.5	17.5	---	---	27.5	17.0	26.0	21.5	21.5	15.5
15	19.0	7.5	22.0	18.0	---	---	27.5	19.5	26.0	21.5	20.5	15.0
16	21.0	10.0	23.0	18.5	---	---	26.5	18.0	25.0	21.0	23.0	14.5
17	22.0	11.0	23.5	19.0	---	---	27.5	18.0	25.0	20.0	20.5	15.5
18	20.0	12.0	23.0	18.5	26.0	20.0	28.5	17.0	25.0	20.0	23.5	15.5
19	19.5	12.0	21.0	18.5	27.5	21.0	28.0	18.0	26.5	21.5	22.5	16.0
20	15.5	11.0	22.0	17.5	27.5	21.5	28.5	19.0	26.0	22.0	23.0	16.0
21	18.0	8.5	20.0	17.5	26.5	20.5	27.0	19.5	26.5	22.0	23.0	16.5
22	20.0	8.5	20.0	16.5	28.5	19.0	30.0	19.0	24.5	22.0	23.0	15.5
23	21.0	10.5	20.0	16.0	26.5	20.0	28.5	21.0	21.5	19.5	23.0	15.5
24	21.0	11.5	21.5	17.0	27.5	19.5	29.0	20.0	23.0	18.5	20.5	15.0
25	22.0	13.0	21.0	17.0	27.0	19.5	27.5	19.0	22.5	19.5	20.0	16.0
26	24.0	13.0	21.5	16.0	24.5	20.5	29.0	19.0	21.0	19.5	22.5	14.5
27	20.5	14.0	22.5	15.5	27.0	21.0	29.5	20.0	20.0	18.5	---	---
28	23.5	13.0	19.5	15.5	26.5	21.0	29.0	20.0	21.0	16.5	---	---
29	23.5	14.0	19.0	15.0	23.5	20.5	29.5	20.5	23.0	18.0	---	---
30	23.5	14.0	22.0	15.0	25.0	19.5	30.0	20.5	22.0	18.0	---	---
31	---	---	24.5	16.5	---	---	31.0	21.0	23.5	18.5	---	---
MONTH	24.0	5.0	25.5	8.5	---	---	31.0	10.0	30.5	16.5	---	---

07126300 PURGATOIRE RIVER NEAR THATCHER, CO

LOCATION.--Lat 37°21'30", long 103°53'44", in sec.10, T.31 S., R.58 W., Las Animas County, Hydrologic Unit 11020010, on right bank 250 ft downstream from county road bridge at gas line crossing, 1.2 mi downstream from Van Bremer Arroyo, and 18 mi southeast of Thatcher.

DRAINAGE AREA.--1,791 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1966 to current year.

REVISED RECORDS.--WDR-CO-84-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,790 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec.1-5, 16-20, and Jan. 9-27. Records good except those for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 30,000 acres. Peak flows regulated to some extent by Trinidad Dam, 52 mi upstream, since January 1975.

AVERAGE DISCHARGE.--10 years (water years 1967-76), 37.9 ft³/s; 27,460 acre-ft/yr, prior to completion of Trinidad Dam; 11 years (water years 1977-87), 86.1 ft³/s; 62,380 acre-ft/yr, subsequent to completion of Trinidad Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,400 ft³/s, July 3, 1981, gage height, 22.0 ft, from rating curve extended above 2,100 ft³/s, on the basis of two slope-area measurements of peak flow; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of July 22, 1954, and May 19, 1955, reached stages of 26.7 and 25.2 ft, respectively, from floodmarks. Flood of June 18, 1965, reached a stage of 23.5 ft, from floodmarks, discharge, 47,700 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,600 ft³/s, at 2100 May 6, gage height, 9.14 ft; minimum daily, 19 ft³/s, Jan. 18-19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	44	40	39	62	50	116	234	89	126	35	61
2	36	51	40	36	71	48	231	193	81	88	43	50
3	46	63	44	42	65	46	203	184	61	50	363	44
4	50	66	44	40	64	51	203	1010	57	39	352	37
5	50	142	45	43	58	72	175	1220	58	37	61	39
6	46	93	50	43	53	108	138	3070	49	32	49	49
7	43	87	56	42	46	156	111	2680	43	23	43	47
8	41	68	56	41	44	197	107	1770	51	21	55	53
9	41	54	53	36	43	159	129	1230	44	28	152	42
10	42	49	45	35	42	120	178	859	75	25	81	39
11	45	41	40	38	43	95	229	682	53	28	71	52
12	64	48	37	43	43	100	259	537	56	28	65	49
13	54	41	41	45	47	92	273	451	71	28	626	38
14	49	46	42	43	58	87	224	342	55	33	299	33
15	46	46	42	35	61	84	256	390	55	34	133	33
16	44	44	43	25	64	82	315	334	51	35	90	32
17	42	43	44	20	62	88	401	294	38	46	71	38
18	41	40	44	19	57	102	493	224	31	42	61	52
19	40	40	44	19	56	117	576	182	32	48	55	40
20	52	40	43	23	55	205	803	236	37	45	50	32
21	370	39	45	25	50	147	502	271	26	33	42	23
22	131	40	43	28	46	102	364	292	26	32	43	23
23	74	42	44	31	47	113	340	197	32	29	84	25
24	67	46	43	35	48	126	327	292	31	32	81	26
25	69	44	46	40	47	128	388	327	75	34	67	30
26	51	45	46	43	47	118	433	197	52	32	50	36
27	47	44	43	47	55	78	385	155	43	32	487	39
28	44	42	43	55	59	120	341	136	44	32	346	37
29	43	41	45	64	---	77	327	136	49	30	140	41
30	42	41	41	65	---	93	280	126	82	30	99	36
31	41	---	42	56	---	92	---	108	---	33	72	---
TOTAL	1892	1570	1374	1198	1493	3253	9117	18359	1547	1185	4266	1176
MEAN	61.0	52.3	44.3	38.6	53.3	105	304	592	51.6	38.2	138	39.2
MAX	370	142	56	65	71	205	803	3070	89	126	626	61
MIN	36	39	37	19	42	46	107	108	26	21	35	23
AC-FT	3750	3110	2730	2330	2960	6450	18080	36420	3070	2350	8460	2330

CAL YR 1986 TOTAL 22660 MEAN 62.1 MAX 1820 MIN 6.1 AC-FT 44950
WTR YR 1987 TOTAL 46430 MEAN 127 MAX 3070 MIN 19 AC-FT 92090

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1982 to current year

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1982 to current year.
WATER TEMPERATURE: December 1982 to current year.
SUSPENDED SEDIMENT DISCHARGE: May 1983 to current year.

INSTRUMENTATION.--Water-quality monitor since December 1982. Pumping sediment sampler since May 1983.

REMARKS.--Daily data that are not published are either missing or of too poor quality to publish. Sediment record is considered fair for water years 1986-87.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 4,960 microsiemens June 21, 1986; minimum, 340 microsiemens Aug. 4, 1987.
WATER TEMPERATURE: Maximum, 31.0°C Aug. 15, 1984; minimum, 0.0°C on many days during winter months.
SEDIMENT CONSCENTRATION: Maximum daily, 49,600 mg/L June 9, 1986; minimum daily, 20 mg/L Mar. 29 to Apr. 2, 1986.
SEDIMENT LOAD: Maximum daily, 250,000 tons June 6, 1983; minimum daily, 0.30 tons May 1, 1986.

EXTREMES FOR WATER YEAR 1986.--
SPECIFIC CONDUCTANCE: Maximum, 4,960 microsiemens June 21; minimum, 400 microsiemens July 2.
WATER TEMPERATURE: Maximum, 27.0°C June 28; minimum, 0.0°C on many days during winter months.
SEDIMENT CONSCENTRATION: Maximum daily, 49,600 mg/L June 9; minimum daily, 20 mg/L Mar. 29 to Apr. 2.
SEDIMENT LOAD: Maximum daily, 193,000 tons June 2; minimum daily, 0.3 tons May 1.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 3,710 microsiemens Jan. 27; minimum, 340 microsiemens Aug. 4.
WATER TEMPERATURE: Maximum, 28.5°C July 31 to Aug. 1; minimum, 0.0°C on many days during winter months.
SEDIMENT CONCENTRATION: Maximum daily, 28,800 mg/l Aug. 13; minimum daily, 30 mg/l Oct. 2.
SEDIMENT LOAD: Maximum daily, 134,000 tons May 6; minimum daily, 2.0 tons Jan. 17-19.

WATER QUALITY DATA. WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT												
01...	1415	42	3100	8.3	15.0	9.2	1500	290	190	210	2	6.1
JAN												
13...	0935	21	3320	8.5	0.0	12.2	1500	280	200	260	3	4.5
MAR												
25...	1130	140	1930	8.5	5.0	10.7	880	170	110	150	2	3.6
MAY												
05...	1435	1110	790	8.2	8.0	10.5	300	69	32	46	1	2.7
08...	1145	1470	532	8.3	10.5	10.0	190	47	17	24	0.8	2.3
JUL												
24...	1215	33	2480	--	24.0	--	960	170	130	180	3	5.1
AUG												
09...	1125	335	1710	--	22.0	--	570	110	72	200	4	14
13...	1015	1310	2350	7.9	19.0	7.2	1100	270	110	140	2	6.7

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
OCT											
01...	183	1600	24	0.50	9.6	2730	2440	3.71	310	20	<0.10
JAN											
13...	241	1800	36	0.50	9.8	3060	2740	4.16	174	--	0.36
MAR											
25...	201	980	28	0.30	12	1750	1570	2.38	661	932	0.40
MAY											
05...	100	310	6.9	0.30	14	559	541	0.76	1680	--	0.43
08...	86	180	5.6	0.20	11	352	339	0.48	1400	--	0.60
JUL											
24...	149	1300	10	0.40	11	2190	1900	2.98	195	--	<0.10
AUG											
09...	210	730	67	0.50	13	1360	1330	1.85	1230	--	<0.10
13...	160	1200	17	0.40	9.0	1860	1850	2.53	6580	871	0.55

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

DATE	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	CYANIDE TOTAL (MG/L AS CN)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT											
01...	0.02	<0.01	<1	<10	3	360	10	<5	30	20	100
JAN											
13...	<0.01	--	--	--	--	--	30	--	--	90	--
MAR											
25...	0.04	<0.01	<1	<10	30	23000	12	10	460	9	120
MAY											
05...	0.02	--	--	--	--	--	60	--	--	14	--
08...	0.04	--	--	--	--	--	85	--	--	9	--
JUL											
24...	0.01	--	--	--	--	--	200	--	--	20	--
AUG											
09...	0.06	--	--	--	--	--	28	--	--	41	--
13...	0.03	<0.01	<1	<10	930	--	20	600	11000	20	--

RADIO CHEMICAL ANALYSIS, WATER YEAR 1986 TO SEPTEMBER 1987

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
MAR								
25...	1130	13	9.6	5.6	5.2	8.4	6.1	8.8

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
01...	1215	59	989	158	--
08...	1220	62	118	20	--
23...	1330	56	29	4.4	--
NOV					
13...	1430	41	24	2.7	--
22...	1045	30	72	5.8	--
DEC					
17...	1220	30	62	5.0	--
JAN					
08...	1300	21	56	3.2	--
09...	1200	25	33	2.2	--
22...	1130	21	29	1.6	--
FEB					
04...	1530	28	40	3.0	--
MAR					
11...	1500	20	27	1.5	--
APR					
15...	1155	12	43	1.4	--
28...	1500	9.0	34	0.83	--
MAY					
21...	1255	17	258	12	--
JUN					
03...	1200	728	7900	15500	--
03...	1630	512	7430	12300	--
04...	1420	217	1330	779	98
06...	1015	154	6700	2790	100
06...	1115	149	6210	2500	100
09...	1600	492	22000	29200	99
18...	1000	23	41	2.5	78
26...	0950	28	226	17	96
27...	0920	44	159	19	97
29...	1045	16	58	2.5	--
JUL					
08...	1515	22	32	1.9	--
12...	1210	19	70	3.6	85
21...	1500	399	14100	15200	98
21...	1720	290	8560	6700	100
22...	1130	189	1920	980	95
28...	1045	34	404	37	99
29...	1300	26	222	16	96
AUG					
05...	1145	75	6110	1240	100
08...	1310	34	173	16	99
11...	1135	34	5790	532	100
21...	1805	327	23800	21000	100
22...	1305	512	15800	21800	99
22...	1440	374	42100	42500	100
23...	1620	500	16100	21700	100
23...	1830	460	12200	15200	100
23...	2000	444	10800	12900	99

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
SEP					
02...	1600	280	7550	5710	100
02...	1800	263	6420	4560	97
06...	0930	56	193	29	95
10...	1030	56	113	17	77
16...	1515	32	44	3.8	76
22...	0945	33	27	2.4	86

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
01...	1100	--	18	--	--
01...	1415	42	18	2.0	--
29...	1330	44	144	17	--
DEC					
18...	1220	44	126	15	--
JAN					
13...	0935	21	47	2.7	--
FEB					
18...	1110	54	83	12	--
MAR					
25...	1130	140	1020	386	--
APR					
15...	1425	323	549	479	--
24...	1100	423	1510	1720	--
MAY					
05...	1400	1290	9810	34200	--
08...	1100	1580	11800	50300	--
29...	0930	154	238	99	--
31...	1315	100	206	55	--
JUN					
16...	1630	48	257	33	--
23...	1600	34	75	6.9	--
JUL					
01...	1330	69	20100	3740	100
10...	1300	24	93	6.0	--
13...	0825	31	100	8.4	--
24...	1215	33	45	4.0	--
AUG					
06...	1015	51	967	133	--
06...	1350	50	564	76	--
09...	1100	65	5940	1040	--
09...	1145	285	6290	4840	--
09...	1240	449	6220	7540	--
09...	1440	384	4520	4690	--
10...	1525	84	692	157	--
13...	0925	1530	58300	241000	96
13...	1135	1250	43000	145000	--
13...	1335	845	30900	70500	--
14...	0830	225	2680	1630	--
19...	1630	53	79	11	--
25...	0945	62	4990	835	100
SEP					
02...	1220	47	185	23	--
17...	1245	32	100	8.6	--
23...	0935	25	70	4.7	--

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2810	---	3300	---	3590	3370	3170	3560	3560	1870	2560	1880
2	3020	---	3460	---	3580	3360	3150	3630	1560	811	2430	1080
3	2790	---	3520	---	3550	3360	3120	919	707	2130	1970	1890
4	2850	---	3530	---	---	3340	3110	2850	1220	2110	2510	2060
5	2670	---	3520	---	---	3330	3150	3220	1370	1960	2550	2380
6	2660	---	3370	---	3570	3330	3160	3420	1050	1470	1480	2540
7	2580	---	3360	---	3560	3320	3350	3570	1430	1420	1800	2600
8	2780	---	3250	---	3570	3340	3300	3230	1290	1950	1940	2730
9	3370	---	3430	3800	3580	3310	3290	4100	1070	2350	2260	2880
10	2260	---	3480	3740	3610	3290	3410	4140	1370	2300	2300	2670
11	1600	---	3580	3610	3730	3300	3370	3510	1700	2430	2330	2600
12	1040	---	3730	3690	3860	3310	3420	3870	1990	2370	2440	2640
13	1210	---	3780	3510	3810	3320	3440	3920	1860	2390	2470	2670
14	1900	3380	3880	3470	3840	3300	3490	3670	2030	2750	2610	2740
15	---	3460	3990	3460	3710	3260	3570	3670	2220	2850	1950	2650
16	---	3300	4080	3350	3280	3260	3630	3720	2250	2370	1260	2460
17	---	3290	3850	3340	3240	3290	3630	3540	2280	2020	1660	2660
18	---	3400	3640	3340	3300	3240	3640	3350	2440	2250	2080	2830
19	---	3530	---	3290	3600	3240	3690	3470	2560	2350	2000	2940
20	---	3560	---	3340	3630	3240	3800	3110	2590	1870	1930	3040
21	---	3540	---	3360	3550	3230	3950	2910	3160	1690	1590	3120
22	---	3520	---	3260	3480	3240	3910	2790	2360	1680	1410	3230
23	---	3450	---	3280	3470	3240	3610	2750	2580	1960	848	3230
24	3260	3460	---	3440	3430	3220	3580	2720	2150	2330	1160	3140
25	3360	3470	---	3450	3390	3300	3370	2740	1770	2260	1510	3070
26	---	3470	---	3430	3380	3300	3190	2770	1040	1700	1750	3040
27	---	3490	---	3460	3380	3210	3100	2780	1090	1230	1830	3070
28	---	3470	---	3490	3370	3200	3120	2880	1510	1510	1760	3100
29	---	3430	---	3470	---	3200	3290	3190	2220	2110	1700	3000
30	---	3310	---	3480	---	3190	3460	3440	2320	2430	1710	3010
31	---	---	---	3530	---	3180	---	3680	---	2520	1750	---
MEAN	---	---	---	---	---	3278	3416	3262	1892	2046	1921	2698
MAX	---	---	---	---	---	3370	3950	4140	3560	2850	2610	3230
MIN	---	---	---	---	---	3180	3100	919	707	811	848	1080

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.5	8.5	---	---	.5	.0	---	---	6.5	3.5	10.5	6.0
2	13.0	9.5	---	---	2.0	.0	---	---	7.5	4.5	11.0	6.5
3	14.5	10.5	---	---	2.0	.0	---	---	7.0	5.0	11.0	8.0
4	13.5	10.5	---	---	2.0	.0	---	---	---	---	11.5	7.0
5	14.0	9.5	---	---	2.0	.0	---	---	---	---	11.5	7.5
6	15.0	10.5	---	---	2.0	.0	---	---	4.0	2.5	12.0	7.0
7	15.5	12.5	---	---	2.0	.0	---	---	2.0	.5	11.5	7.5
8	14.5	12.0	---	---	2.0	.0	---	---	2.0	.0	10.5	7.5
9	13.0	11.0	---	---	2.0	.0	.5	.0	2.0	.0	11.5	8.0
10	11.5	10.0	---	---	.0	.0	2.0	.0	2.0	.0	9.5	7.5
11	13.0	10.5	---	---	2.0	.0	2.0	.0	.5	.0	10.0	6.5
12	13.5	10.5	---	---	.0	.0	2.0	.0	.5	.0	10.0	8.0
13	12.5	10.0	---	---	.0	.0	2.0	.0	2.0	.0	9.0	6.5
14	10.0	8.0	5.5	4.0	.0	.0	2.0	.0	2.0	.0	9.0	5.5
15	---	---	4.5	2.0	.0	.0	2.0	.0	1.0	.0	9.5	6.0
16	---	---	5.0	2.0	.0	.0	2.0	.0	5.0	1.0	12.0	7.5
17	---	---	3.5	2.5	2.0	.0	2.0	.0	7.0	3.0	10.0	7.5
18	---	---	4.5	2.0	2.0	.0	2.0	.0	7.5	4.5	8.0	5.5
19	---	---	3.0	.5	---	---	2.0	.0	8.0	5.5	7.5	4.0
20	---	---	2.0	.0	---	---	1.5	.0	7.0	5.0	9.5	5.0
21	---	---	2.5	.0	---	---	2.0	.0	7.0	3.0	11.5	6.0
22	---	---	2.5	.0	---	---	2.0	.0	7.5	3.0	13.0	7.5
23	---	---	1.5	.5	---	---	2.0	.0	8.0	4.5	14.0	9.0
24	14.0	11.0	2.5	.0	---	---	2.5	.0	9.5	5.0	14.0	10.5
25	14.0	10.5	5.5	1.5	---	---	2.0	.0	10.5	6.0	13.0	10.0
26	---	---	5.0	3.5	---	---	2.0	.0	11.5	7.0	14.0	9.5
27	---	---	5.0	3.5	---	---	2.0	.0	10.0	7.	15.0	9.5
28	---	---	4.5	2.5	---	---	3.5	.0	10.0	6.0	16.5	11.5
29	---	---	4.5	3.0	---	---	4.5	1.0	---	---	17.0	13.0
30	---	---	3.0	.0	---	---	5.0	2.0	---	---	16.5	13.5
31	---	---	---	---	---	---	5.5	3.0	---	---	16.0	13.0
MONTH	---	---	---	---	---	---	---	---	---	---	17.0	4.0

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.5	12.0	20.5	16.0	17.5	14.5	27.0	22.0	24.0	21.5	22.0	20.0
2	14.5	10.0	19.0	15.5	15.0	12.5	22.0	16.0	24.5	20.5	19.5	13.0
3	13.0	7.0	20.0	14.5	18.0	15.0	27.0	21.0	24.5	19.5	20.5	15.0
4	12.0	6.0	21.0	17.0	21.5	17.0	27.0	23.0	24.5	20.0	22.0	18.5
5	13.5	8.5	21.0	16.0	21.0	18.5	25.5	23.5	23.5	20.0	22.5	18.0
6	13.5	10.0	20.5	16.0	22.0	18.0	26.5	22.0	25.0	20.0	20.5	17.5
7	15.0	10.5	19.5	16.0	23.5	19.5	26.5	23.0	25.5	21.0	19.5	16.5
8	14.0	11.5	16.5	14.5	20.5	15.0	25.0	22.5	26.0	21.5	21.0	17.0
9	15.0	10.0	16.5	12.5	17.0	15.0	25.0	22.0	23.0	20.5	21.0	18.0
10	16.5	11.0	19.0	13.0	18.0	15.5	25.5	21.5	22.0	19.0	20.0	17.5
11	17.5	12.5	19.5	14.5	20.0	15.5	26.0	21.0	24.0	18.5	20.5	16.5
12	17.5	13.0	21.0	15.5	22.0	17.0	26.0	22.0	25.5	20.0	21.0	16.5
13	15.5	12.5	20.0	16.5	23.0	19.0	25.0	22.0	26.0	21.5	20.5	17.5
14	14.5	10.0	20.5	14.5	23.5	18.3	26.5	21.5	24.5	22.0	21.0	17.5
15	15.5	10.5	20.0	17.0	25.0	18.5	26.0	22.0	22.5	14.0	21.5	17.5
16	14.5	11.0	18.0	14.0	25.0	20.5	25.5	21.0	21.5	17.0	21.0	18.5
17	15.0	12.0	14.0	11.5	25.0	21.0	26.0	21.5	24.5	20.0	21.0	17.0
18	14.5	11.0	17.0	10.5	25.0	20.5	26.0	22.0	26.0	21.5	20.0	17.0
19	15.5	10.5	19.0	14.0	25.5	21.0	25.5	22.0	25.5	21.5	19.5	16.0
20	16.0	11.5	21.5	16.0	24.5	21.5	23.0	16.0	25.0	21.5	19.5	16.0
21	18.5	13.0	22.0	17.0	22.5	20.0	19.5	13.5	22.5	21.0	20.0	17.0
22	19.0	15.0	20.0	18.0	22.0	18.5	22.5	18.0	22.0	18.0	19.5	17.0
23	19.5	15.5	18.0	15.5	24.0	20.5	24.5	20.0	19.5	16.0	18.5	17.0
24	19.0	15.5	17.5	14.5	22.5	19.5	25.5	21.0	22.5	18.0	17.5	14.5
25	17.0	15.0	19.5	16.0	23.0	19.0	24.5	21.5	24.5	20.0	16.0	12.5
26	16.5	13.5	20.0	17.0	23.5	19.5	21.5	17.0	22.5	20.5	16.0	12.5
27	16.0	12.0	18.0	16.0	26.0	19.5	23.0	16.0	23.0	19.0	17.0	13.0
28	18.5	12.5	17.0	15.5	27.0	21.5	25.0	19.5	22.5	19.0	15.5	13.5
29	20.0	15.0	17.5	15.5	25.5	22.0	26.0	20.5	22.5	19.0	14.5	13.0
30	21.0	16.0	18.5	15.5	26.5	21.5	26.5	22.0	23.5	20.0	15.5	12.0
31	---	---	18.0	16.0	---	---	25.5	22.5	24.0	20.5	---	---
MONTH	21.0	6.0	22.0	10.5	27.0	12.5	27.0	13.5	26.0	14.0	22.5	12.0

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3020	3130	3120	3450	2790	2840	1980	786	2000	2360	2440	2460
2	3040	3120	3140	3430	2860	2680	1570	846	2070	1760	2440	2800
3	3070	3120	3210	3420	3220	2690	1160	906	2110	2180	2210	2890
4	3050	3140	3390	3410	3380	2720	1220	759	2140	2250	534	2940
5	2960	3110	3350	3260	3140	2670	1210	827	2190	2310	1440	3120
6	2910	2580	3170	3190	2920	2170	1350	543	2110	2380	1820	3170
7	2900	2890	3180	3180	2890	1640	1580	517	2150	2440	2230	3160
8	2910	2620	3210	3240	2910	1230	1740	530	2200	2490	2390	2820
9	2880	2620	3310	3300	2960	1090	1760	587	2290	2510	2020	2850
10	2940	2870	3280	3400	2970	1130	1570	653	2230	2590	1280	3400
11	2920	3060	3300	3380	2990	1350	1210	708	2170	2780	2190	3230
12	2950	3150	3370	3380	2990	1580	1020	755	1830	2650	2260	3240
13	2980	3210	3340	3380	2970	1610	957	938	2170	2620	1900	2800
14	3020	3220	3500	3410	2890	1640	1120	948	2170	2540	2080	2670
15	3010	3250	3440	3370	2590	1740	1170	1060	1950	2480	1790	2930
16	3020	3190	3250	3390	2570	1700	996	1080	2310	2430	2280	2980
17	3050	3250	3220	3420	2600	1690	807	1070	2420	2600	2520	3090
18	3030	3240	3210	3530	2630	1750	671	1140	2440	2560	2540	2400
19	3020	3270	3260	3510	2620	1790	599	1320	2560	2470	2470	2750
20	2920	3280	3260	3580	2730	1590	547	1360	2280	2420	2480	2620
21	2040	3290	3310	3650	2760	1250	596	1350	2590	2300	2690	2980
22	1720	3300	3330	3540	2790	1290	695	1790	2630	2200	2780	2980
23	2350	3280	3380	3410	2850	1510	740	1770	2730	2220	2880	3050
24	2780	3240	3360	3460	2930	1700	665	1770	2750	2480	2700	3170
25	3020	3210	3320	3510	2960	1880	697	1520	2630	2480	2440	3230
26	2840	3220	3320	3360	2940	1860	654	1440	2540	2520	3040	3240
27	3000	3230	3340	3350	2910	1880	641	1530	2780	2480	2730	3370
28	3070	3280	3390	3340	2870	1770	693	1680	2600	2410	1800	3460
29	3140	3260	3380	3310	---	1760	719	1700	2580	2450	1950	3210
30	3170	3190	3420	3370	---	1980	741	1870	2490	2450	2260	3260
31	3170	---	3430	3180	---	2040	---	1920	---	2430	2320	---
MEAN	2900	3127	3306	3391	2880	1814	1036	1151	2337	2427	2223	3009
MAX	3170	3300	3500	3650	3380	2840	1980	1920	2780	2780	3040	3460
MIN	1720	2580	3120	3180	2570	1090	547	517	1830	1760	534	2400

CAL YR 1986 MEAN 2884 MAX 4140 MIN 707
WTR YR 1987 MEAN 2464 MAX 3650 MIN 517

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.5	12.5	10.5	7.5	1.0	.0	2.0	.0	2.0	.0	5.5	2.0
2	16.0	13.0	7.5	6.5	.5	.0	2.0	.0	2.0	.5	7.0	3.0
3	15.0	13.5	7.5	6.0	.5	.0	.5	.0	3.5	1.5	8.5	4.5
4	16.0	13.0	7.0	5.5	2.0	.0	.5	.0	3.5	2.5	9.5	5.5
5	15.5	12.5	7.0	4.5	1.0	.0	.5	.0	4.5	2.5	10.5	6.5
6	16.0	13.0	7.5	5.0	2.0	.5	.5	.0	5.0	2.0	11.0	7.0
7	16.5	13.5	7.0	5.5	2.0	1.0	.5	.0	5.0	2.0	10.0	7.5
8	17.0	14.0	6.0	4.5	1.5	.5	.5	.0	5.0	2.5	9.5	6.5
9	15.5	13.5	5.0	3.0	1.0	.0	.5	.0	5.5	2.5	6.5	4.5
10	15.0	12.5	3.5	1.0	.5	.0	.0	.0	6.0	3.0	5.0	3.5
11	13.5	8.5	3.0	.0	.5	.0	.5	.0	7.0	3.5	7.0	3.5
12	8.5	7.0	2.0	.5	.5	.0	1.0	.0	7.0	5.0	9.5	5.0
13	8.5	5.5	2.0	.0	.0	.0	1.0	.0	8.0	4.5	10.5	6.5
14	10.0	6.5	3.5	.5	2.0	.0	.5	.0	6.5	5.0	10.5	7.5
15	11.5	7.5	4.5	1.5	2.0	.0	.0	.0	6.0	3.5	9.0	7.0
16	12.0	9.0	5.0	3.0	.5	.0	.0	.0	5.5	4.5	10.0	6.5
17	13.0	9.5	6.0	3.0	.0	.0	.0	.0	5.0	3.5	8.0	6.0
18	13.0	10.0	6.0	4.0	.5	.0	.5	.0	4.5	3.5	10.0	5.0
19	13.0	11.5	7.5	5.0	2.0	.0	.5	.0	3.5	2.5	9.0	7.0
20	12.5	10.5	7.5	5.0	.5	.0	.5	.0	3.5	1.0	8.5	6.5
21	10.5	9.0	7.5	5.0	2.0	.0	.0	.0	3.5	1.0	8.5	5.0
22	10.5	8.5	5.5	5.0	2.0	.0	.0	.0	4.0	1.0	8.0	5.0
23	12.0	9.5	6.0	4.0	2.0	.0	.0	.0	4.5	1.5	6.5	3.0
24	12.5	10.5	4.5	2.5	2.0	.0	.0	.0	5.5	2.0	6.0	4.0
25	11.5	10.0	5.0	2.5	.5	.0	.5	.0	5.5	3.0	7.5	4.5
26	11.5	9.5	4.5	3.0	.5	.0	.0	.0	7.0	4.5	9.5	5.5
27	11.5	8.5	4.5	2.5	2.0	.0	.0	.0	6.0	4.0	7.5	4.5
28	12.0	9.0	4.5	2.5	.5	.0	.0	.0	5.5	2.5	4.5	2.5
29	12.0	9.5	5.0	2.5	.5	.0	.0	.0	---	---	4.0	1.0
30	12.5	9.5	3.5	.0	.0	.0	.5	.0	---	---	5.5	.5
31	11.5	10.0	---	---	.0	.0	.5	.0	---	---	8.5	3.0
MONTH	17.0	5.5	10.5	.0	2.0	.0	2.0	.0	8.0	.0	11.0	.5

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.5	6.0	16.5	13.0	22.5	17.0	24.5	15.5	28.5	23.5	23.0	19.0
2	9.5	7.0	16.5	13.0	23.5	18.5	24.0	15.5	28.0	23.0	24.5	19.5
3	10.0	5.0	15.0	10.0	21.0	18.0	25.5	20.0	26.5	11.0	24.0	19.5
4	9.5	7.0	9.5	5.5	22.0	16.0	25.0	20.0	17.5	11.0	22.0	20.0
5	8.0	6.0	8.5	5.5	24.0	18.0	26.5	20.0	22.5	17.0	22.5	19.0
6	8.0	5.5	9.5	7.5	24.5	18.5	26.0	20.5	25.0	19.5	22.0	18.5
7	9.0	6.0	10.5	7.0	25.5	19.5	26.0	20.5	26.0	22.0	22.0	18.5
8	11.5	7.0	12.5	10.0	24.5	20.0	26.0	21.0	24.0	22.0	21.5	13.0
9	12.5	9.0	14.0	12.5	21.5	20.0	25.0	21.0	23.0	21.5	21.0	13.5
10	13.0	10.0	15.5	13.5	23.0	18.5	25.0	19.5	24.5	20.5	21.5	17.5
11	13.5	10.5	15.5	13.5	24.5	18.5	25.5	20.0	25.5	22.0	21.5	17.5
12	12.0	8.5	16.0	13.5	25.5	20.5	23.0	20.0	23.5	22.0	21.0	17.5
13	8.5	6.0	16.5	13.0	24.5	20.5	24.5	18.5	22.5	19.0	21.5	17.5
14	9.0	4.5	18.5	14.5	26.0	20.0	25.0	18.5	22.5	19.5	19.5	17.5
15	12.5	7.0	17.5	14.5	25.0	21.0	25.0	20.5	23.5	19.5	19.0	16.0
16	14.5	9.5	19.0	15.0	25.5	20.0	25.0	20.0	24.0	19.5	20.0	15.5
17	15.0	11.5	19.5	15.5	25.0	20.5	24.5	20.5	24.5	19.0	19.0	16.5
18	15.0	11.0	20.5	16.0	25.5	20.0	25.5	19.5	24.0	20.0	19.5	15.0
19	12.5	10.5	19.0	17.0	26.5	21.0	25.0	20.0	26.0	21.0	20.5	16.5
20	11.5	7.5	19.0	15.5	26.0	12.5	25.0	20.0	25.5	21.0	20.5	17.0
21	9.5	7.0	18.0	16.0	24.5	20.0	25.5	20.5	26.0	21.5	21.0	17.0
22	12.0	7.0	17.5	15.5	26.5	20.0	26.0	19.5	24.0	21.5	20.5	16.5
23	14.0	9.5	19.0	15.0	24.0	20.5	26.5	21.5	21.5	19.0	21.0	16.5
24	14.5	10.5	19.5	16.0	25.5	20.5	27.5	22.0	21.0	17.5	21.0	16.5
25	14.5	11.5	18.0	15.5	24.5	21.5	26.0	21.0	21.5	18.5	19.0	17.0
26	14.0	11.5	19.0	14.0	23.5	19.5	26.0	20.0	20.0	18.5	20.0	16.0
27	15.0	12.0	18.5	10.5	25.5	20.0	26.5	20.5	19.0	15.5	19.5	16.0
28	14.5	10.5	17.5	15.0	25.5	20.5	26.0	20.5	19.5	15.0	19.5	16.0
29	16.5	12.5	17.0	14.5	22.0	19.5	27.5	21.5	21.0	17.0	19.5	16.0
30	17.5	12.5	19.5	14.0	22.0	18.5	28.0	21.5	21.0	18.0	19.0	15.0
31	---	---	21.0	16.0	---	---	28.5	22.0	22.5	17.5	---	---
MONTH	17.5	4.5	21.0	5.5	26.5	12.5	28.5	15.5	28.5	11.0	24.5	13.0

YEAR MAXIMUM 28.5 MINIMUM .0

ARKANSAS RIVER BASIN

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	63	90	15	66	1140	330	25	75	5.1
2	55	80	12	94	870	227	25	55	3.7
3	59	125	20	63	110	19	27	---	6.2
4	57	140	22	51	78	11	31	115	9.6
5	58	105	16	46	---	5.0	33	85	7.6
6	57	110	17	45	---	4.3	35	---	8.5
7	58	120	19	43	---	3.5	32	95	8.2
8	49	115	15	43	---	3.5	34	---	9.2
9	95	2580	1030	41	---	2.8	26	---	6.3
10	159	2750	1800	39	---	2.6	21	---	4.5
11	304	---	21500	38	---	2.6	19	---	3.6
12	161	---	6520	36	---	2.4	18	---	2.9
13	88	---	2730	39	25	2.6	20	---	2.7
14	277	---	10400	42	30	3.4	22	---	3.3
15	125	---	1010	43	50	5.8	24	---	3.9
16	94	---	203	46	75	9.3	27	---	4.4
17	84	---	136	46	90	11	30	62	5.0
18	76	---	103	50	100	13	30	---	4.0
19	70	---	76	45	100	12	31	---	3.3
20	66	---	18	37	100	10	30	42	3.4
21	64	---	14	36	90	8.7	36	---	4.9
22	63	---	10	36	82	8.0	36	---	3.9
23	56	60	9.1	36	---	12	36	31	3.0
24	50	60	8.1	35	---	10	38	29	3.0
25	48	---	7.5	36	94	9.1	36	---	3.4
26	46	55	6.8	36	---	8.7	31	---	3.3
27	46	---	6.3	37	---	8.5	33	---	4.0
28	45	48	5.8	37	---	8.0	30	51	4.1
29	44	43	5.1	36	---	8.7	31	---	4.2
30	44	60	7.1	28	---	6.7	32	---	4.3
31	44	60	7.1	---	---	---	38	---	5.1
TOTAL	2605	---	45748.9	1306	---	769.2	917	---	148.6
YEAR	22652.0		700911.50						

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	38	---	5.1	29	---	2.7	23	---	1.6
2	31	---	4.2	28	---	3.0	23	---	1.6
3	31	---	4.2	28	---	3.0	23	---	1.6
4	35	---	4.7	28	40	3.0	23	---	1.6
5	31	---	4.2	27	---	2.9	24	---	1.6
6	24	---	3.2	27	---	2.9	23	---	1.6
7	21	---	3.1	26	---	2.8	22	---	1.5
8	20	56	3.0	23	---	1.9	21	---	1.4
9	19	33	1.7	20	---	1.1	21	---	1.4
10	25	---	2.7	17	---	.90	21	---	1.5
11	34	---	4.6	17	---	.90	20	27	1.5
12	36	---	5.8	20	---	1.1	20	31	1.7
13	38	---	7.2	23	---	1.9	21	---	2.0
14	46	---	9.9	34	---	3.7	22	39	2.3
15	37	---	7.0	45	---	6.1	23	---	2.2
16	39	---	8.4	40	---	4.9	23	28	1.7
17	38	---	7.2	34	---	3.7	21	---	1.7
18	38	---	6.2	29	---	2.3	21	---	1.7
19	39	---	5.3	27	---	2.2	21	---	1.7
20	34	---	3.7	26	---	2.1	23	31	1.9
21	32	---	2.6	25	---	2.0	23	---	1.9
22	34	29	2.7	24	---	1.9	23	30	1.9
23	31	---	2.1	24	---	1.9	23	---	1.9
24	28	---	1.9	24	---	1.9	21	25	1.4
25	28	---	1.9	24	---	1.9	20	---	1.4
26	27	---	1.8	24	---	1.9	19	24	1.2
27	25	---	1.7	23	---	1.6	19	25	1.3
28	25	---	1.7	23	---	1.6	19	22	1.1
29	28	---	1.9	---	---	---	18	20	.97
30	28	---	1.9	---	---	---	18	20	.97
31	28	---	1.9	---	---	---	18	20	.97
TOTAL	968	---	123.5	739	---	67.80	660	---	48.81
YEAR	22652.0		700911.50						

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	17	20	.92	6.1	---	.30	123	1260	1210
2	17	20	.92	38	6010	961	1820	29900	193000
3	19	25	1.3	37	3100	309	766	12600	29600
4	23	---	1.9	27	---	14	323	4600	4010
5	34	134	12	13	---	4.7	368	8310	9690
6	28	60	4.5	9.1	---	2.9	160	6220	2670
7	24	95	6.2	7.2	---	1.9	94	1400	355
8	22	100	5.9	13	---	5.5	301	49600	45000
9	20	105	5.7	12	---	3.6	504	33800	54200
10	19	95	4.9	14	---	4.0	194	---	298
11	18	90	4.4	16	---	5.2	152	1630	713
12	17	80	3.7	12	---	3.8	116	---	392
13	15	60	2.4	13	---	6.2	76	990	203
14	13	50	1.8	20	---	15	59	700	112
15	12	44	1.4	9.5	---	2.8	55	525	78
16	11	---	1.2	7.5	---	2.2	47	400	51
17	11	---	1.2	12	---	3.9	36	190	18
18	11	---	1.2	27	---	22	24	205	13
19	13	---	1.8	45	---	46	22	165	9.8
20	19	---	5.5	36	---	29	20	108	5.8
21	27	---	5.0	15	260	11	53	1200	280
22	20	---	3.1	11	132	3.9	22	240	14
23	14	---	2.0	10	---	2.2	20	142	7.7
24	12	---	1.6	7.5	---	1.4	135	3030	1340
25	9.8	---	1.3	7.8	---	1.2	87	1070	249
26	8.2	---	1.0	9.1	---	1.2	29	210	16
27	13	120	4.3	8.2	---	1.1	41	258	30
28	9.1	48	1.2	7.2	---	1.0	25	120	8.1
29	8.2	---	.60	8.2	---	1.2	16	61	2.6
30	6.7	---	.40	8.8	---	2.4	13	---	1.5
31	---	---	---	26	---	13	---	---	---
TOTAL	491.0	---	89.34	493.2	---	1482.60	5701	---	343577.3
YEAR	22652.0		700911.50						

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	18	87	4.2	25	224	20	99	992	974
2	549	8180	35600	24	98	6.4	398	5510	6740
3	64	399	76	26	140	9.8	131	1690	598
4	26	175	12	65	1300	465	78	472	99
5	19	110	5.6	78	1220	257	60	252	41
6	19	---	3.6	56	1170	177	55	180	27
7	21	---	2.9	41	330	37	54	142	21
8	23	57	3.5	32	250	22	72	148	28
9	21	47	2.7	114	20200	9550	64	115	20
10	21	66	3.7	54	22100	3230	54	108	16
11	21	---	4.0	35	6000	567	54	81	12
12	18	68	3.3	28	600	45	52	70	9.8
13	28	139	12	27	430	32	55	68	10
14	46	189	27	36	390	38	43	63	7.3
15	32	262	23	778	40100	14400	40	63	6.8
16	26	252	18	197	9800	5210	36	50	4.9
17	21	198	11	101	1650	450	31	63	5.3
18	19	---	8.9	76	360	74	27	54	3.9
19	29	---	19	61	285	47	25	47	3.2
20	348	---	34400	45	219	27	28	46	3.5
21	702	25700	73400	304	17000	21400	32	32	2.8
22	167	5560	3110	376	28100	39700	34	25	2.3
23	103	---	129	847	18700	52400	36	---	3.9
24	80	---	67	176	3640	1730	29	---	2.3
25	53	238	34	103	592	165	28	---	2.3
26	162	5150	2350	94	328	83	26	---	1.8
27	47	---	228	100	---	121	26	---	1.8
28	31	450	38	114	---	139	27	---	2.2
29	24	230	15	102	---	96	31	---	3.3
30	14	---	5.9	76	---	49	38	---	6.2
31	9.8	---	3.3	56	---	30	---	---	---
TOTAL	2761.8	---	149620.5	4247	---	150577.2	1763	---	8659.6
YEAR	22652.0		700911.50						

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	41	35	3.9	44	---	18	40	129	14
2	36	---	3.0	51	---	23	40	---	12
3	46	---	5.5	63	---	37	44	105	12
4	50	---	9.5	66	---	30	44	---	12
5	50	---	11	142	---	1370	45	108	13
6	46	---	8.5	93	---	421	50	---	15
7	43	---	7.5	87	---	152	56	111	17
8	41	---	7.0	68	---	33	56	---	17
9	41	---	7.0	54	---	25	53	111	16
10	42	---	8.0	49	---	21	45	---	13
11	256	---	11	41	---	17	40	111	12
12	64	---	25	48	---	19	37	---	11
13	54	---	12	41	---	17	41	114	13
14	238	---	8.5	46	---	19	42	---	13
15	46	---	8.0	46	---	19	42	114	13
16	44	---	7.0	44	---	18	43	---	13
17	42	---	7.0	43	---	17	44	114	14
18	41	---	6.5	40	---	16	44	126	15
19	40	---	6.5	40	---	16	44	---	12
20	52	---	20	40	---	16	43	---	8.0
21	370	---	7050	39	---	16	45	---	6.0
22	131	---	1270	40	---	17	43	---	6.0
23	74	---	380	42	---	19	44	---	5.0
24	67	---	236	46	---	22	43	---	6.0
25	69	---	120	44	180	21	46	---	6.0
26	51	---	24	45	---	21	46	---	6.0
27	47	---	22	44	180	21	43	---	6.0
28	44	---	18	42	---	21	43	---	6.0
29	43	144	17	41	174	19	45	---	6.0
30	42	---	16	41	---	16	41	---	5.5
31	41	---	15	---	---	---	42	---	5.5
TOTAL	2292	---	9350.4	1570	---	2497	1374	---	330.0
YEAR	46824		753409.7						
		JANUARY			FEBRUARY			MARCH	
1	39	---	5.5	62	---	8.5	50	---	14
2	36	---	5.0	71	---	12	48	---	13
3	42	---	6.0	65	---	10	46	---	12
4	40	---	5.5	64	---	10	51	---	14
5	43	---	6.0	58	---	9.5	72	---	30
6	43	---	6.0	53	---	8.5	108	---	67
7	42	---	5.5	46	---	7.5	156	---	574
8	41	---	5.5	44	---	7.0	197	---	1090
9	38	---	5.0	43	---	7.0	159	---	340
10	35	---	4.5	42	---	7.0	120	---	130
11	38	---	5.0	43	---	7.0	95	---	90
12	43	---	6.0	43	---	7.0	100	---	213
13	45	47	5.7	47	---	9.0	92	---	174
14	43	---	5.0	58	---	11	87	---	164
15	35	---	4.0	61	---	12	84	---	147
16	25	---	2.5	64	---	12	82	---	133
17	20	---	2.0	62	---	12	88	---	154
18	19	---	2.0	57	83	13	102	---	248
19	19	---	2.0	56	---	12	117	---	327
20	23	---	2.5	55	---	12	205	---	1060
21	25	---	2.5	50	---	11	147	---	278
22	28	---	3.0	46	---	10	102	---	138
23	31	---	3.5	47	---	10	113	---	183
24	35	---	4.0	48	---	10	126	464	155
25	40	---	4.5	47	---	10	128	578	208
26	43	---	4.5	47	---	10	118	---	127
27	47	---	5.0	55	---	21	78	---	195
28	55	---	6.5	59	---	19	120	750	243
29	64	---	8.5	---	---	---	77	---	94
30	65	---	9.0	---	---	---	93	550	138
31	56	---	7.5	---	---	---	92	520	129
TOTAL	1198	---	149.7	1493	---	295.0	3253	---	6882
YEAR	46824		753409.7						

07126300 PURGATOIRE RIVER NEAR THATCHER, CO.--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	116	1060	366	234	800	505	89	230	55
2	231	3230	2170	193	---	292	81	150	33
3	203	2200	1210	184	560	278	61	120	20
4	203	1960	1130	1010	11500	34000	57	110	17
5	175	700	331	1220	13800	47600	58	105	16
6	138	---	186	3070	14200	134000	49	100	13
7	111	490	147	2680	16200	116000	43	---	11
8	107	350	101	1770	9760	49100	51	119	18
9	129	452	163	1230	5500	19600	44	---	11
10	178	797	394	859	3250	7760	75	1280	275
11	229	1230	775	682	2620	4850	53	430	62
12	269	1520	1090	537	2000	2900	56	180	27
13	273	1200	885	451	1600	1950	71	---	33
14	224	650	393	342	1160	1070	55	---	22
15	256	1090	791	379	2640	2700	55	---	38
16	315	1800	1560	334	1440	1300	51	300	41
17	401	3160	3550	294	800	635	38	---	23
18	493	5200	7170	224	720	435	31	---	16
19	576	5580	8800	182	440	216	32	---	13
20	803	9550	21100	236	560	357	37	663	108
21	502	4080	5680	271	2000	1970	26	---	34
22	364	1620	1590	292	16200	13700	26	---	11
23	340	1260	1160	197	1120	596	32	90	7.8
24	327	920	812	292	6990	6550	31	---	5.0
25	388	2370	2780	327	4230	3830	75	---	276
26	433	3150	3720	197	1520	808	52	---	112
27	385	2710	2820	155	---	120	43	---	85
28	341	1760	1620	136	---	88	44	---	71
29	327	1900	1710	136	176	65	49	---	66
30	280	2160	1630	126	176	60	82	---	1430
31	---	---	---	108	210	61	---	---	---
TOTAL	9117	---	75834	18348	---	453396	1547	---	2949.8
YEAR	46824		753409.7						

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	126	4730	2320	35	---	7.9	61	360	59
2	88	2190	553	43	---	13	50	248	33
3	50	680	92	363	---	23700	44	180	21
4	39	---	27	352	---	13700	37	135	13
5	37	---	17	61	---	415	39	90	9.5
6	32	---	12	49	675	89	49	250	38
7	23	---	6.7	43	135	16	47	225	28
8	21	---	5.0	56	172	27	53	529	86
9	28	---	7.9	152	2410	1710	42	405	46
10	25	95	6.4	81	10300	2260	39	135	14
11	28	84	6.4	71	270	52	52	262	50
12	28	91	6.9	65	---	32	49	270	36
13	28	102	7.7	626	28800	76700	38	315	32
14	33	---	8.4	299	7410	5320	33	270	24
15	34	---	8.4	133	6300	2260	33	180	16
16	35	---	8.9	90	1440	350	32	135	12
17	46	120	15	71	405	78	38	112	12
18	42	105	12	61	270	44	52	205	28
19	48	77	10	55	360	53	40	171	18
20	45	98	12	50	450	61	32	116	10
21	33	---	6.9	42	360	41	23	70	4.4
22	32	---	4.8	43	315	37	23	75	4.7
23	29	---	3.8	84	1090	382	25	65	4.4
24	32	42	3.6	81	1390	305	26	48	3.4
25	34	---	4.8	69	3180	583	30	40	3.2
26	32	---	4.8	50	495	67	36	52	5.0
27	32	52	4.5	487	16200	51800	39	50	5.3
28	32	63	5.4	346	14900	16700	37	40	4.0
29	30	---	5.1	142	1660	715	41	45	5.0
30	30	---	4.0	99	1170	313	36	42	4.1
31	33	---	6.9	72	---	70	---	---	---
TOTAL	1185	---	3197.3	4271	---	197900.9	1176	---	629.0
YEAR	46824		753409.7						

07126325 TAYLOR ARROYO BELOW ROCK CROSSING, NEAR THATCHER, CO

LOCATION.--Lat 37°25'26", long 103°55'09", in SE¼SE¼ sec.17, T.30 S., R.58 W., Las Animas County, Hydrologic Unit 11010010, on left bank 5 mi upstream from mouth, 1.6 mi southeast of Rock Crossing, and 13.5 mi southeast of Thatcher.

DRAINAGE AREA.--48.4 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1983 to current year.

GAGE.--Water-stage recorder, and crest-stage gage. Elevation of gage is 4,982 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 761 ft³/s, Aug. 21, 1984, gage height, 7.94 ft, result of slope-area measurement of peak flow; no flow most of the time.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5.0 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 20	2215	11	4.07	July 2	0145	319	6.42
May 4	0415	38	4.50	Aug. 9	0915	*669	*7.71

No flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	22	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.26	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	9.5	.00	.00	.16	.00
5	.00	.00	.00	.00	.00	.00	.00	.96	.00	.00	.06	.00
6	.00	.00	.00	.00	.00	.00	.00	.37	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	1.5	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.20	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	82	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.9	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.86	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.07	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.84	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	3.5	.00	.00	.00	.00	.00	.00	.25	.00	.00	.00	.00
22	.12	.00	.00	.00	.00	.00	.00	1.1	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.97	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.34	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.12	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	4.46	.00	.00	.00	.00	.00	.00	15.35	.93	22.26	84.43	.00
MEAN	.14	.00	.00	.00	.00	.00	.00	.50	.03	.72	2.72	.00
MAX	3.5	.00	.00	.00	.00	.00	.00	9.5	.86	22	82	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	8.8	.0	.0	.0	.0	.0	.0	30	1.8	44	167	.0

CAL YR 1986 TOTAL 59.27 MEAN .16 MAX 18 MIN .00 AC-FT 118
WTR YR 1987 TOTAL 127.43 MEAN .35 MAX 82 MIN .00 AC-FT 253

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORDS.--March 1983 to current year.

PERIOD OF DAILY RECORD.--March 1983 to current year.

INSTRUMENTATION.--Water-quality monitor since March 1983. Pumping sediment sampler since Aug. 5, 1983.

REMARKS.--Daily data that are not published are either missing, their was no flow during the day, or of poor quality. Maximum and minimum specific conductance and water temperature are published only for the period of flow during the day that was recorded.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 2,520 microsiemens Aug. 20, 1984; minimum, 90 microsiemens June 1, 1986.
WATER TEMPERATURE: Maximum, 32.0°C Aug. 11, 1987; minimum, 2.5°C May 4, 1987.
SEDIMENT CONCENTRATIONS: Maximum daily, 15,300 mg/L Aug. 22, 1984; no flow most of time.
SEDIMENT LOAD: Maximum daily, 4,910 tons Aug. 9, 1987; no flow most of time.

EXTREMES FOR CURRENT YEAR .--
SPECIFIC CONDUCTANCE: Maximum, 2,180 microsiemens Aug. 4; minimum, 580 microsiemens Aug. 9.
WATER TEMPERATURE: Maximum, 32.0°C Aug. 11; minimum, 2.5°C May 4.
SEDIMENT CONCENTRATIONS: Maximum daily, 8,220 mg/L July 2; no flow most of time.
SEDIMENT LOAD: Maximum daily, 4,910 tons Aug. 9; no flow most time.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
JUN									
16...	1145	2.4	1980	--	25.0	--	1000	280	85
AUG									
09...	1430	68	1060	7.9	22.5	6.8	570	180	29

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
JUN								
16...	69	1	13	75	940	11	0.70	6.6
AUG								
09...	16	0.3	10	78	530	4.5	0.40	7.6

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHOROUS DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
JUN								
16...	1740	1450	2.37	11.3	0.89	0.09	17	29
AUG								
09...	854	824	1.16	157	0.45	0.04	8	20

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. $ FINER THAN .062 MM
JUN					
01...	0910	7.0	486	9.2	97
01...	0945	5.8	576	9.0	95
01...	1030	4.9	739	9.8	96
01...	1110	2.8	638	4.8	95
01...	1135	2.6	531	3.7	96
01...	1345	2.0	585	3.2	99
01...	1415	2.2	558	3.3	97
01...	1445	2.6	478	3.4	96
01...	1900	3.0	510	4.1	89
02...	1130	2.6	70	0.49	97
02...	1250	43	334	39	92
02...	1300	50	586	79	91
02...	1355	42	2160	245	99
02...	1400	42	13200	1500	100
02...	1420	38	6620	679	99
02...	1430	34	8200	753	100
02...	1520	25	12500	844	100
02...	1700	15	12500	506	100
02...	1900	9.8	5910	156	99
02...	1930	9.0	4540	110	100
02...	2000	7.9	1880	40	97
02...	2330	18	15500	753	95
03...	0025	3.6	14300	139	99
03...	0100	3.6	14400	140	100
03...	1045	2.0	302	1.6	97
03...	1200	2.0	358	1.9	98
04...	1030	0.13	52	0.02	--
26...	0815	0.01	69	0.00	86
JUL					
21...	1215	1.1	197	0.59	98
22...	1300	0.05	69	0.01	90
AUG					
05...	0950	0.01	138	0.00	95
23...	1140	1.0	1060	2.9	96
24...	1540	0.16	117	0.05	92

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOPER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. $ FINER THAN .062 MM
JUN					
16...	1050	2.8	664	5.0	--
16...	1145	2.4	495	3.2	--
16...	1325	1.8	262	1.3	--
16...	1800	1.3	116	0.41	--
17...	0845	0.05	23	0.00	--
AUG					
04...	1900	0.71	62	0.12	--
04...	2000	0.58	78	0.12	--
05...	0740	0.03	17	0.00	--
05...	1310	0.02	17	0.00	--
09...	1415	82	9820	2170	99
09...	1550	38	7220	741	99
10...	1615	0.27	78	0.06	--

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

MAXIMUMS AND MINIMUMS ONLY FOR PERIOD OF FLOW DURING THE DAY

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	860	660	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	2470	610	---	---
20	---	---	---	---	---	---	---	---	2520	970	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

MAXIMUMS AND MINIMUMS ONLY FOR PERIOD OF FLOW DURING THE DAY

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	26.0	21.5	---	---
20	---	---	---	---	---	---	---	---	29.0	20.5	---	---
21	---	---	---	---	---	---	---	---	18.0	18.0	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
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4	570	130	---	---	---	---	---	---	---	---	---	---
5	220	150	---	---	---	---	---	---	---	---	---	---
6	230	210	---	---	---	---	---	---	---	---	---	---
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07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

MAXIMUMS AND MINIMUMS ONLY FOR PERIOD OF FLOW DURING THE DAY

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	200	90	---	---	---	---	---	---
2	---	---	---	---	1490	180	---	---	---	---	1100	970
3	---	---	---	---	1170	1080	---	---	---	---	---	---
4	---	---	---	---	1210	1140	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
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17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	190	120	---	---	---	---
20	---	---	---	---	---	---	390	190	---	---	---	---
21	---	---	---	---	---	---	390	300	---	---	---	---
22	---	---	---	---	---	---	330	310	---	---	---	---
23	---	---	---	---	290	220	---	---	---	---	---	---
24	---	---	---	---	260	210	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
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TEMPERATURE, WATER, (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
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4	---	---	---	---	---	---	---	---	---	---	---	---
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11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	12.0	10.5	---	---	---	---	---	---	---	---	---	---
14	10.5	10.0	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	17.0	14.0	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
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21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
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27	---	---	---	---	---	---	---	---	---	---	---	---
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31	---	---	---	---	---	---	---	---	---	---	---	---

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

MAXIMUMS AND MINIMUMS ONLY FOR PERIOD OF FLOW DURING THE DAY

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	1480	1400	---	---
4	---	---	---	---	---	---	---	---	1480	1400	---	---
5	---	---	---	---	---	---	---	---	1530	1450	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
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17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	700	150	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
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21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	2020	1610	---	---	---	---
24	---	---	---	---	---	---	2010	1700	---	---	---	---
25	---	---	---	---	---	---	1750	1700	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
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31	---	---	---	---	---	---	---	---	---	---	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	13.5	11.0	---	---	---	---	---	---	---	---	---	---
5	16.0	10.0	---	---	---	---	---	---	---	---	---	---
6	14.5	12.5	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
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31	---	---	---	---	---	---	---	---	---	---	---	---

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

MAXIMUMS AND MINIMUMS ONLY FOR PERIOD OF FLOW DURING THE DAY

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	16.0	16.0	---	---
4	---	---	---	---	---	---	---	---	26.5	16.5	---	---
5	---	---	---	---	---	---	---	---	31.5	21.0	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
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17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	21.0	12.5	---	---	---	---	---	---	---	---
19	---	---	20.0	15.5	---	---	---	---	---	---	---	---
20	---	---	23.5	15.0	---	---	---	---	---	---	---	---
21	---	---	21.0	16.0	---	---	---	---	---	---	---	---
22	---	---	21.0	14.5	---	---	---	---	---	---	---	---
23	---	---	21.0	16.5	---	---	25.0	23.5	---	---	---	---
24	---	---	---	---	---	---	29.5	21.5	---	---	---	---
25	---	---	---	---	---	---	24.5	21.5	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
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SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
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12	---	---	---	---	---	---	---	---	---	---	---	---
13	350	300	---	---	---	---	---	---	---	---	---	---
14	310	300	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	320	300	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
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23	---	---	---	---	---	---	---	---	---	---	---	---
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27	---	---	---	---	---	---	---	---	---	---	---	---
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TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

MAXIMUMS AND MINIMUMS ONLY FOR PERIOD OF FLOW DURING THE DAY

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	15.5	13.5	---	---	---	---	20.0	14.0
2	---	---	---	---	19.0	14.5	---	---	21.0	12.0	27.5	15.0
3	---	---	---	---	24.0	14.0	---	---	24.5	12.0	---	---
4	---	---	---	---	26.5	17.0	---	---	30.5	16.0	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	24.5	18.5	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	22.0	20.5	---	---	---	---
20	---	---	---	---	---	---	23.5	20.5	---	---	---	---
21	---	---	---	---	---	---	27.0	19.5	---	---	---	---
22	---	---	---	---	---	---	27.0	20.5	21.5	20.0	---	---
23	---	---	---	---	25.0	17.5	---	---	21.5	18.5	---	---
24	---	---	---	---	23.0	16.5	---	---	30.5	18.0	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
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31	---	---	---	---	---	---	---	---	---	---	---	---

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	1510	1250	---	---	---	---	2180	2030	---	---
5	---	---	1350	1300	---	---	---	---	2140	2030	---	---
6	---	---	1390	830	---	---	---	---	---	---	---	---
7	---	---	1820	1160	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	1760	580	---	---
10	---	---	---	---	---	---	---	---	1400	1190	---	---
11	---	---	---	---	---	---	---	---	1450	1370	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	2040	1370	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	1580	770	---	---	---	---	---	---	---	---
22	---	---	1250	660	---	---	---	---	---	---	---	---
23	---	---	1200	680	---	---	---	---	---	---	---	---
24	---	---	1230	920	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	1120	890	---	---
26	---	---	---	---	---	---	---	---	1300	1000	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

MAXIMUMS AND MINIMUMS ONLY FOR PERIOD OF FLOW DURING THE DAY

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	6.5	2.5	---	---	---	---	27.0	23.0	---	---
5	---	---	13.0	6.5	---	---	---	---	30.5	19.5	---	---
6	---	---	13.5	12.0	---	---	---	---	---	---	---	---
7	---	---	17.5	10.5	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	24.5	18.0	---	---
10	---	---	---	---	---	---	---	---	30.0	20.5	---	---
11	---	---	---	---	---	---	---	---	32.0	21.5	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	28.5	20.5	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	19.5	16.5	---	---	---	---	---	---	---	---
22	---	---	23.5	14.5	---	---	---	---	---	---	---	---
23	---	---	22.0	14.5	---	---	---	---	---	---	---	---
24	---	---	21.5	18.5	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	21.5	20.5	---	---
26	---	---	---	---	---	---	---	---	23.0	18.5	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.00		---	.00			.00		
2	.00		---	.00			.00		
3	.00		---	.00			.00		
4	.00		---	.00			.00		
5	.00		---	.00			.00		
6	.00		---	.00			.00		
7	.00		---	.00			.00		
8	.00		---	.00			.00		
9	.00		---	.00			.00		
10	.00		---	.00			.00		
11	.00		---	.00			.00		
12	.00		---	.00			.00		
13	.07		.05	.00			.00		
14	.02		---	.00			.00		
15	.00		---	.00			.00		
16	.00		---	.00			.00		
17	.02		---	.00			.00		
18	.00		---	.00			.00		
19	.00		---	.00			.00		
20	.00		---	.00			.00		
21	.00		---	.00			.00		
22	.00		---	.00			.00		
23	.00		---	.00			.00		
24	.00		---	.00			.00		
25	.00		---	.00			.00		
26	.00		---	.00			.00		
27	.00		---	.00			.00		
28	.00		---	.00			.00		
29	.00		---	.00			.00		
30	.00		---	.00			.00		
31	.00		---	---			.00		
TOTAL	0.11		0.05	0.00			0.00		

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			---			.00		
30	.00			---			.00		
31	.00			---			.00		
TOTAL	0.00			0.00			0.00		
		APRIL			MAY			JUNE	
1	.00			.00			2.9	630	8.4
2	.00			.00			18	7320	1420
3	.00			.00			3.5	2340	21
4	.00			.00			.06	70	.01
5	.00			.00			.00	---	---
6	.00			.00			.00	---	---
7	.00			.00			.00	---	---
8	.00			.00			2.9	282	11
9	.00			.00			.34	---	.04
10	.00			.00			.00	---	---
11	.00			.00			.00	---	---
12	.00			.00			.00	---	---
13	.00			.00			.00	---	---
14	.00			.00			.00	---	---
15	.00			.00			.00	---	---
16	.00			.00			.00	---	---
17	.00			.00			.00	---	---
18	.00			.00			.00	---	---
19	.00			.00			.00	---	---
20	.00			.00			.00	---	---
21	.00			.00			.00	---	---
22	.00			.00			.00	---	---
23	.00			.00			.79	---	2.7
24	.00			.00			.16	---	.05
25	.00			.00			.00	---	---
26	.00			.00			.00	---	---
27	.00			.00			.00	---	---
28	.00			.00			.00	---	---
29	.00			.00			.00	---	---
30	.00			.00			.00	---	---
31	---			.00			---	---	---
TOTAL	0.00			0.00			28.65	---	1463.20

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	.00	---	---	.00	---	---	8.8	259	17
2	.00	---	---	8.5	---	47	.22	38	.04
3	.00	---	---	1.5	---	6.1	.00	---	---
4	.00	---	---	.22	---	.19	.00	---	---
5	.00	---	---	.00	---	---	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.05	178	.24	.00	---	---	.00	---	---
20	2.0	304	2.9	.00	---	---	.00	---	---
21	.67	139	.50	.00	---	---	.00	---	---
22	.05	63	.01	1.3	157	6.5	.00	---	---
23	.00	---	---	2.6	429	6.4	.00	---	---
24	.00	---	---	.23	137	.11	.00	---	---
25	.00	---	---	.02	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	.00	---	---	.00	---	---
31	.00	---	---	.00	---	---	---	---	---
TOTAL	2.77	---	3.65	14.37	---	66.30	9.02	---	17.04
YEAR	54.92		1550.24						

DAY									
		OCTOBER			NOVEMBER			DECEMBER	
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	.00	---	---	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	.00	---	---	.00	---	---
5	.00	---	---	.00	---	---	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.84	209	4.4	.00	---	---	.00	---	---
21	3.5	370	5.6	.00	---	---	.00	---	---
22	.12	38	.01	.00	---	---	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	.00	---	---	.00	---	---
31	.00	---	---	---	---	---	.00	---	---
TOTAL	4.46	---	---	.00	---	---	.00	---	---

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	.00	---	---	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	.00	---	---	.00	---	---
5	.00	---	---	.00	---	---	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	.00	---	---	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	---	---	---	.00	---	---
30	.00	---	---	---	---	---	.00	---	---
31	.00	---	---	---	---	---	.00	---	---
TOTAL	.00	---	---	.00	---	---	.00	---	---
		APRIL			MAY			JUNE	
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	.00	---	---	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	9.5	---	61	.00	---	---
5	.00	---	---	.96	---	1.1	.00	---	---
6	.00	---	---	.37	108	.14	.00	---	---
7	.00	---	---	1.5	116	.65	.00	---	---
8	.00	---	---	.20	40	.02	.00	---	---
9	.00	---	---	.02	8	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.86	183	1.0
17	.00	---	---	.00	---	---	.07	23	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.25	39	.06	.00	---	---
22	.00	---	---	1.1	51	.19	.00	---	---
23	.00	---	---	.97	56	.19	.00	---	---
24	.00	---	---	.34	32	.03	.00	---	---
25	.00	---	---	.14	9	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	.00	---	---	.00	---	---
31	---	---	---	.00	---	---	---	---	---
TOTAL	.00	---	---	15.35	---	---	.93	---	---

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	.00	---	---	.00	---	---	.00	---	---
2	22	8220	1790	.00	---	---	.00	---	---
3	.26	---	.07	.00	---	---	.00	---	---
4	.00	---	---	.16	23	.04	.00	---	---
5	.00	---	---	.06	18	---	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	82	8180	4910	.00	---	---
10	.00	---	---	1.9	949	8.2	.00	---	---
11	.00	---	---	.05	65	.01	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	.00	---	---	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.12	23	.08	.00	---	---
26	.00	---	---	.14	72	.06	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	.00	---	---	.00	---	---
31	.00	---	---	.00	---	---	---	---	---
TOTAL	22.26	---	---	84.43	---	---	.00	---	---

07126390 LOCKWOOD CANYON CREEK NEAR THATCHER, CO

LOCATION.--Lat 37°29'40", long 103°50'12", in SE¼NW¼ sec.30, T.29 S., R.57 W., Las Animas County, Hydrologic Unit 11020010, on right bank, 0.4 mi downstream from Sharp Ranch, 5.5 mi upstream from mouth, and 16 mi southeast of Thatcher.

DRAINAGE AREA.--41.4 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1983 to current year.

REVISED RECORDS.--WDR CO-86-1: 1983, 1984.

GAGE.--Water-stage recorder. Elevation of gage is 4,815 ft above National Geodetic Vertical Datum of 1929, from topographic map

REMARKS.--Estimated daily discharges: Jan. 10-11. Records good except those for periods of estimated daily discharges and those above about 10 ft³/s, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,070 ft³/s, May 22, 1987, gage height, 10.39 ft, from flood mark, from rating extended above 5 ft³/s on the basis of slope-area measurements at gage heights of 9.42 and 10.39 ft; no flow many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2.0 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 4	0330	202	7.60	May 22	1715	*a1,070	*b10.39
May 7	0115	19	5.42				

No flow Sept. 1-3, 6-15.
a-From rating extended above 5 ft³/s, on basis of slope-area measurements of peak flows.
b-From floodmark.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.06	.08	.02	.07	.06	.10	.13	.17	.15	.01	.00
2	.02	.06	.07	.02	.04	.06	.10	.14	.15	.08	.01	.00
3	.02	.06	.06	.02	.04	.06	.10	.40	.16	.04	.01	.00
4	.03	.07	.06	.02	.04	.06	.11	36	.15	.04	.01	.01
5	.02	.07	.05	.02	.04	.07	.12	3.7	.14	.05	.01	.02
6	.02	.06	.05	.02	.04	.08	.12	.46	.14	.04	.01	.00
7	.02	.06	.05	.02	.04	.08	.11	5.3	.14	.03	.01	.00
8	.03	.06	.05	.02	.04	.08	.11	.41	.15	.03	.01	.00
9	.03	.06	.04	.03	.04	.08	.10	.22	.17	.03	.01	.00
10	.03	.06	.04	.03	.04	.07	.10	.22	.17	.03	.01	.00
11	.04	.06	.04	.03	.04	.07	.10	.31	.14	.02	.01	.00
12	.03	.06	.04	.03	.04	.07	.10	.43	.14	.02	.01	.00
13	.03	.06	.04	.03	.04	.07	.10	.41	.11	.02	.01	.00
14	.03	.06	.04	.03	.05	.06	.10	.33	.10	.02	.01	.00
15	.03	.06	.04	.02	.07	.06	.10	.33	.10	.02	.01	.00
16	.03	.06	.04	.02	.08	.07	.10	.33	.10	.02	.01	.01
17	.03	.06	.03	.02	.07	.09	.10	.33	.09	.02	.01	.01
18	.04	.06	.03	.02	.07	.12	.10	.33	.08	.02	.02	.01
19	.04	.06	.03	.02	.07	.10	.10	.38	.08	.02	.02	.01
20	.07	.06	.03	.02	.06	.08	.10	.67	.07	.02	.03	.01
21	.06	.06	.03	.02	.10	.07	.09	.61	.07	.01	.03	.01
22	.04	.06	.03	.02	.06	.07	.10	83	.07	.01	.02	.04
23	.04	.06	.03	.02	.06	.12	.10	4.0	.08	.01	.03	.09
24	.04	.06	.03	.02	.07	.11	.12	3.0	.07	.01	.03	.09
25	.04	.06	.03	.03	.07	.10	.13	1.2	.07	.01	.10	.10
26	.04	.06	.03	.04	.07	.10	.13	.45	.07	.01	.05	.09
27	.04	.06	.03	.03	.07	.09	.13	.33	.07	.01	.07	.03
28	.04	.06	.03	.03	.06	.10	.13	.29	.06	.01	.03	.02
29	.04	.06	.02	.03	---	.10	.13	.25	.06	.01	.02	.02
30	.04	.07	.02	.03	---	.11	.13	.23	.09	.01	.01	.01
31	.05	---	.02	.10	---	.12	---	.20	---	.01	.01	---
TOTAL	1.08	1.83	1.21	.83	1.58	2.58	3.26	144.39	3.26	.83	.64	.58
MEAN	.03	.06	.04	.03	.05	.08	.11	4.66	.11	.03	.02	.02
MAX	.07	.07	.08	.10	.10	.12	.13	83	.17	.15	.10	.10
MIN	.02	.06	.02	.02	.04	.06	.09	.13	.06	.01	.01	.00
AC-FT	2.1	3.6	2.4	1.6	3.1	5.1	6.5	286	6.5	1.6	1.3	1.2

CAL YR 1986 TOTAL 52.45 MEAN .14 MAX 16 MIN .00 AC-FT 104
WTR YR 1987 TOTAL 162.07 MEAN .44 MAX 83 MIN .00 AC-FT 321

07126390 LOCKWOOD CANYON CREEK NEAR THATCHER, CO--Continued

WATER-QUALITY RECORD

PERIOD OF RECORD.--June 1983 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1983 to current year.
WATER TEMPERATURE: June 1983 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Daily data that are not published are either missing, or of poor quality or are during periods of no flow. Records are good. Daily maximum and minium specific conductance data are available in the district office. Daily specific conductance and water temperature for water years 1983 to 1987 are published in this report.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 3,830 microsiemens Dec. 6, 21, 1986; minimum, 190 microsiemens May 22, 1987.
WATER TEMPERATURE: Maximum, 30.5°C July 9-10, 1983; minimum, 0.0°C on many days during the winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 3,570 microsiemens Aug. 12-13; minimum, 190 microsiemens May 22.
WATER TEMPERATURE: Maximum 28.0°C July 30-31; minimum, 0.0°C many days during winter.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
MAR 11...	1315	0.07	3050	8.0	8.0	11.8	1300	320	120
MAY 07...	1400	3.7	1060	8.0	14.0	8.8	420	130	24
JUL 29...	1415	0.01	3480	7.9	29.0	8.8	1600	370	170

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
MAR 11...	210	3	8.8	155	1600	28	0.70	11
MAY 07...	64	1	6.2	107	440	6.6	0.30	14
JUL 29...	280	3	10	188	2000	34	0.70	2.2

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR 11...	2760	2390	3.75	0.52	<0.10	<0.01	40	30
MAY 07...	766	750	1.04	7.74	0.24	0.03	280	43
JUL 29...	3240	2980	4.41	0.09	<0.10	0.01	40	20

07126390 LOCKWOOD CANYON CREEK NEAR THATCHER, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	741	---	---
2	---	---	---	---	---	---	---	---	---	844	---	---
3	---	---	---	---	---	---	---	---	---	967	---	---
4	---	---	---	---	---	---	---	---	---	1160	---	---
5	---	---	---	---	---	---	---	---	---	1300	---	---
6	---	---	---	---	---	---	---	---	---	1350	---	---
7	---	---	---	---	---	---	---	---	---	1410	---	---
8	---	---	---	---	---	---	---	---	---	1530	---	---
9	---	---	---	---	---	---	---	---	---	1550	---	---
10	---	---	---	---	---	---	---	---	---	1550	---	---
11	---	---	---	---	---	---	---	---	---	1710	---	---
12	---	---	---	---	---	---	---	---	---	1750	---	---
13	---	---	---	---	---	---	---	---	---	1750	---	---
14	---	---	---	---	---	---	---	---	---	1860	1940	---
15	---	---	---	---	---	---	---	---	---	1930	1960	---
16	---	---	---	---	---	---	---	---	2730	1940	2050	---
17	---	---	---	---	---	---	---	---	2590	2050	2150	---
18	---	---	---	---	---	---	---	---	2540	2170	2140	---
19	---	---	---	---	---	---	---	---	2600	2150	2150	---
20	---	---	---	---	---	---	---	---	2740	2200	2220	---
21	---	---	---	---	---	---	---	---	2760	2310	2310	---
22	---	---	---	---	---	---	---	---	2720	2350	2340	---
23	---	---	---	---	---	---	---	---	2750	2340	2370	---
24	---	---	---	---	---	---	---	---	2760	2340	2330	---
25	---	---	---	---	---	---	---	---	2780	2390	2350	---
26	---	---	---	---	---	---	---	---	2560	2520	2370	---
27	---	---	---	---	---	---	---	---	1890	2540	2390	---
28	---	---	---	---	---	---	---	---	440	2580	---	---
29	---	---	---	---	---	---	---	---	540	2720	---	---
30	---	---	---	---	---	---	---	---	638	2760	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	28.0	20.5	---	---	---	---
2	---	---	---	---	---	---	26.0	20.5	---	---	---	---
3	---	---	---	---	---	---	27.5	20.5	---	---	---	---
4	---	---	---	---	---	---	27.0	21.5	---	---	---	---
5	---	---	---	---	---	---	27.0	21.5	---	---	---	---
6	---	---	---	---	---	---	29.0	22.0	---	---	---	---
7	---	---	---	---	---	---	29.5	22.5	---	---	---	---
8	---	---	---	---	---	---	30.0	23.5	---	---	---	---
9	---	---	---	---	---	---	30.5	23.5	---	---	---	---
10	---	---	---	---	---	---	30.5	24.5	---	---	---	---
11	---	---	---	---	---	---	26.0	23.5	---	---	---	---
12	---	---	---	---	---	---	26.5	22.5	---	---	---	---
13	---	---	---	---	---	---	26.5	22.5	---	---	---	---
14	---	---	---	---	---	---	28.0	22.5	28.5	25.5	---	---
15	---	---	---	---	---	---	27.0	22.5	29.0	23.5	---	---
16	---	---	---	---	27.0	22.5	27.0	22.5	30.0	23.5	---	---
17	---	---	---	---	27.0	20.5	27.5	23.5	29.5	23.5	---	---
18	---	---	---	---	27.5	21.5	29.5	23.0	28.5	23.5	---	---
19	---	---	---	---	28.0	22.0	29.0	24.0	27.5	23.5	---	---
20	---	---	---	---	29.0	22.0	29.5	24.5	29.0	23.5	---	---
21	---	---	---	---	29.0	22.5	30.0	24.5	28.0	23.5	---	---
22	---	---	---	---	27.0	22.5	29.5	24.5	26.5	23.5	---	---
23	---	---	---	---	27.0	22.5	30.0	24.5	26.5	22.5	---	---
24	---	---	---	---	26.0	22.5	29.0	24.5	27.0	22.5	---	---
25	---	---	---	---	25.5	22.5	29.5	24.5	27.5	22.5	---	---
26	---	---	---	---	23.0	20.5	29.5	24.5	27.5	22.5	---	---
27	---	---	---	---	24.0	19.5	30.0	24.5	26.5	22.5	---	---
28	---	---	---	---	22.0	17.5	28.5	24.5	---	---	---	---
29	---	---	---	---	26.5	19.5	29.0	24.0	---	---	---	---
30	---	---	---	---	29.0	20.0	28.5	24.5	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

07126390 LOCKWOOD CANYON CREEK NEAR THATCHER, CO--Continued

SPECIFIC CONDUCTANCE (MISCROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	3350	---	2830	2940	1580	2750	2940	---	---	1160
2	---	---	3380	---	2860	2930	979	2750	2910	---	---	1330
3	---	---	3380	---	2910	2950	1170	2760	2930	---	---	1460
4	---	---	3380	---	2920	2910	1380	2760	2950	---	---	1540
5	---	---	3370	---	2950	2890	1520	2760	2960	---	---	1670
6	---	---	3380	---	2960	2940	1700	2740	2980	---	---	1750
7	---	---	3390	---	2870	2970	1870	2730	3040	---	---	---
8	---	---	3370	---	2810	2960	2010	2740	3100	---	---	---
9	---	3330	3360	---	2890	2950	2110	2750	3110	---	---	---
10	---	3330	3340	---	2860	2970	2210	2750	3120	3380	---	---
11	---	3320	3320	3230	2940	2950	2360	2750	3140	3380	---	---
12	---	3330	3300	3180	2960	2930	2370	2820	3150	---	---	---
13	---	3330	3290	3160	2990	2930	2480	2820	3160	---	---	---
14	---	3320	3320	3150	2930	2940	---	2900	3160	---	---	---
15	---	3330	3380	3150	2890	2950	---	2880	3150	3360	---	2550
16	---	3320	3410	3170	2830	3030	---	2870	3150	3370	---	2570
17	---	3340	3430	3220	2940	3090	---	2820	---	---	---	2550
18	---	3310	3420	3210	2930	3020	2750	2760	---	---	---	2550
19	---	3200	3420	3220	2750	2740	2770	2820	3260	---	---	2650
20	---	3200	3430	3210	2870	2540	2770	2920	3260	---	---	---
21	---	3200	3420	3190	2940	2530	2750	2910	3270	---	---	---
22	---	3180	3370	3170	2990	2530	2660	2910	3280	---	1500	---
23	---	3200	3330	3140	2940	2540	2690	2900	3210	---	586	---
24	---	3240	3310	3110	2960	2550	2730	2930	3220	---	648	---
25	---	3230	---	3110	2930	2610	2770	2950	3220	---	562	---
26	---	3210	---	3080	2950	2650	2760	2930	---	---	636	---
27	---	3240	---	3030	2960	2570	2740	2930	---	---	747	---
28	---	3280	---	3000	2950	2610	2770	2960	---	---	740	---
29	---	3290	---	3000	2930	2640	2770	2950	---	---	911	---
30	---	3320	---	2890	---	2750	2770	2950	---	---	966	---
31	---	---	---	2820	---	2730	---	2960	---	---	1140	---
MEAN	---	---	---	---	2913	2814	---	2845	---	---	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	3.0	2.5	---	---	1.5	1.0	2.0	1.0
2	---	---	---	---	3.0	2.0	---	---	1.5	1.0	3.0	1.5
3	---	---	---	---	2.5	2.5	---	---	1.5	1.0	3.0	1.5
4	---	---	---	---	2.5	2.0	---	---	1.5	1.0	3.0	1.5
5	---	---	---	---	2.0	2.0	---	---	1.5	1.0	2.5	1.5
6	---	---	---	---	2.0	1.5	---	---	2.0	.5	3.0	2.0
7	---	---	---	---	2.0	1.5	---	---	2.0	.5	3.0	2.0
8	---	---	---	---	2.0	1.5	---	---	1.0	.5	4.0	2.5
9	---	---	9.5	7.5	2.0	1.5	---	---	2.0	1.0	5.0	3.5
10	---	---	8.0	6.0	2.0	2.0	---	---	2.0	1.0	5.5	4.0
11	---	---	8.0	6.0	2.5	2.0	1.0	.5	1.5	1.0	6.0	3.5
12	---	---	8.0	6.0	2.5	2.0	1.5	.5	1.5	1.0	6.0	4.0
13	---	---	8.5	6.0	2.5	2.5	1.5	1.5	2.0	1.0	7.0	4.5
14	---	---	8.0	6.5	2.5	1.5	1.5	1.0	1.5	1.0	9.0	5.5
15	---	---	8.0	5.0	3.0	1.5	1.5	1.0	2.0	1.0	10.0	7.5
16	---	---	7.5	5.0	4.0	2.0	1.5	1.0	1.5	.0	9.5	7.5
17	---	---	7.5	5.0	4.0	3.0	1.0	.5	1.0	.0	10.0	6.5
18	---	---	7.5	4.5	3.0	2.0	.5	.5	1.0	.0	8.5	1.0
19	---	---	5.5	3.5	2.5	2.0	.5	.5	.5	.0	4.5	.5
20	---	---	5.5	3.5	2.5	2.0	.5	.5	.5	.0	5.0	2.5
21	---	---	6.0	4.5	2.0	1.5	1.0	.5	.5	.0	6.5	3.5
22	---	---	5.0	3.5	1.5	1.0	.5	.5	1.0	.0	5.0	4.0
23	---	---	5.5	3.5	1.0	1.0	1.0	.5	1.0	.0	6.5	4.0
24	---	---	5.0	3.0	1.0	1.0	.5	.5	1.0	.5	8.0	3.5
25	---	---	6.0	4.5	1.0	1.0	.5	.5	2.0	.5	8.0	5.5
26	---	---	4.5	1.5	---	---	.5	.5	1.5	.5	8.0	5.5
27	---	---	2.0	1.0	---	---	.5	.5	1.0	.5	7.0	5.5
28	---	---	3.0	2.0	---	---	1.0	.5	1.0	.5	8.5	4.5
29	---	---	3.5	3.0	---	---	1.0	.5	2.0	.5	11.0	5.5
30	---	---	3.5	2.5	---	---	1.0	.5	---	---	8.0	7.0
31	---	---	---	---	---	---	1.0	.5	---	---	9.0	6.5
MONTH	---	---	---	---	---	---	---	---	2.0	.0	11.0	.5

07126390 LOCKWOOD CANYON CREEK NEAR THATCHER, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.5	2.5	15.5	12.5	23.0	20.0	---	---	---	---	24.0	21.5
2	4.0	2.5	15.5	12.5	22.5	19.5	---	---	---	---	24.0	20.5
3	6.0	2.5	16.5	12.5	23.0	18.5	---	---	---	---	25.0	20.5
4	9.5	4.5	15.0	13.5	24.0	18.5	---	---	---	---	25.0	20.5
5	11.5	5.5	16.0	13.5	20.5	18.5	---	---	---	---	25.5	20.0
6	13.5	7.5	17.0	13.5	19.5	17.5	---	---	---	---	25.0	20.5
7	11.5	9.5	14.5	13.0	21.0	17.5	---	---	---	---	---	---
8	13.5	8.5	17.0	12.0	21.5	17.5	---	---	---	---	---	---
9	11.5	9.5	19.5	13.0	23.0	17.5	---	---	---	---	---	---
10	13.0	9.5	21.0	14.5	21.5	18.5	---	---	---	---	---	---
11	12.0	9.5	19.0	15.5	23.0	19.0	27.0	22.5	---	---	---	---
12	13.0	8.5	23.0	16.5	24.0	19.5	---	---	---	---	---	---
13	13.0	9.0	21.5	18.0	23.5	20.5	---	---	---	---	---	---
14	---	---	21.5	17.5	26.0	20.0	---	---	---	---	---	---
15	---	---	21.5	18.0	26.5	21.5	---	---	---	---	19.0	18.0
16	---	---	20.0	18.5	26.0	21.5	27.0	23.5	---	---	21.0	17.5
17	---	---	19.0	17.5	---	---	---	---	---	---	22.0	18.0
18	14.0	12.5	20.0	16.5	---	---	---	---	---	---	22.0	17.5
19	15.0	11.5	21.0	16.5	26.0	22.0	---	---	---	---	22.0	17.5
20	13.0	8.5	22.0	17.5	26.5	21.5	---	---	---	---	---	---
21	9.0	7.0	23.0	18.5	26.5	22.0	---	---	---	---	---	---
22	10.0	6.5	23.0	19.5	28.0	22.5	---	---	---	16.5	---	---
23	15.0	7.5	25.0	19.0	24.5	22.5	---	---	21.5	17.0	---	---
24	14.0	10.0	23.0	20.5	27.0	21.5	---	---	27.0	19.5	---	---
25	16.0	11.5	22.5	19.5	27.5	21.5	---	---	26.5	20.5	---	---
26	13.5	10.5	23.0	18.5	---	---	---	---	26.0	20.5	---	---
27	13.0	9.5	23.5	19.5	---	---	---	---	27.0	21.0	---	---
28	11.5	10.0	22.5	19.5	---	---	---	---	27.5	21.5	---	---
29	12.0	9.5	22.5	17.5	---	---	---	---	26.5	21.5	---	---
30	14.5	9.5	24.0	18.5	---	---	---	---	26.0	21.5	---	---
31	---	---	24.0	19.5	---	---	---	---	26.0	21.5	---	---
MONTH	---	---	25.0	12.0	---	---	---	---	---	---	---	---

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	2920	3160	---	---	---	---	2610	2960	---	---	---
2	---	2990	3170	---	---	---	---	2600	3000	---	---	---
3	3110	3120	3170	---	---	---	---	2600	3080	---	---	---
4	3110	3090	3180	---	---	---	---	2610	3130	---	---	---
5	2760	3110	3180	---	---	---	---	2630	3140	---	---	---
6	2360	3110	3120	---	---	---	---	2660	3150	---	---	---
7	2430	3090	3120	---	---	---	---	2680	3160	---	---	---
8	2530	3010	3130	---	---	---	---	2700	3170	---	---	---
9	2550	2980	3160	---	---	---	---	2720	3130	---	---	---
10	2540	3020	3120	---	---	---	---	2810	3120	---	---	---
11	2540	3030	3040	---	---	---	---	2850	3130	---	---	---
12	2510	3060	2960	---	---	---	---	2890	3130	---	---	---
13	2550	3120	---	---	---	---	---	2890	3140	---	---	---
14	2770	3120	---	---	---	---	---	2760	3150	---	---	---
15	2740	3120	---	---	---	---	---	2700	3150	---	---	---
16	2720	3120	---	---	---	---	---	2700	3170	---	---	---
17	2740	3120	---	---	---	---	---	2720	3220	---	---	---
18	2760	3140	---	---	---	---	---	2740	3210	---	---	---
19	2800	3170	---	---	---	---	---	2760	3250	---	---	---
20	2910	3120	---	---	---	---	---	2760	3250	---	---	---
21	2950	3120	---	---	---	---	---	2780	3300	---	---	---
22	2980	3120	---	---	---	---	---	2850	3310	---	---	---
23	2910	3130	---	---	---	---	---	2890	3330	---	---	---
24	2930	3160	---	---	---	---	2730	2890	3340	---	---	---
25	2940	3130	---	---	---	---	2700	2900	3350	---	---	---
26	2940	3140	---	---	---	---	2740	2930	3360	---	---	---
27	2960	3150	---	---	---	---	2730	2950	3370	---	---	---
28	2960	3160	---	---	---	---	2660	2970	3340	---	---	---
29	2960	3170	---	---	---	---	2580	2960	---	3480	---	---
30	2970	3150	---	---	---	---	2590	2920	---	3480	---	---
31	2970	---	---	---	---	---	---	2940	---	---	---	---
MEAN	---	3100	---	---	---	---	---	2786	---	---	---	---

07126390 LOCKWOOD CANYON CREEK NEAR THATCHER, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	10.0	8.0	5.0	3.5	---	---	---	---	---	---
2	---	---	11.0	7.5	5.0	3.5	---	---	---	---	---	---
3	---	13.5	11.0	7.5	5.0	3.5	---	---	---	---	---	---
4	15.0	13.5	9.5	6.5	5.0	3.5	---	---	---	---	---	---
5	15.5	12.5	8.0	6.5	5.0	3.5	---	---	---	---	---	---
6	16.5	12.5	8.0	6.5	4.5	3.0	---	---	---	---	---	---
7	17.0	12.5	9.5	6.0	4.0	2.5	---	---	---	---	---	---
8	15.5	12.5	9.0	6.0	4.0	1.5	---	---	---	---	---	---
9	17.0	13.0	7.0	5.5	4.5	3.0	---	---	---	---	---	---
10	18.0	13.5	7.0	5.0	4.0	2.5	---	---	---	---	---	---
11	17.0	13.5	6.5	4.5	4.5	3.5	---	---	---	---	---	---
12	17.0	13.5	8.0	4.5	4.5	3.5	---	---	---	---	---	---
13	16.0	13.5	7.0	5.0	---	---	---	---	---	---	---	---
14	14.0	11.0	7.0	5.0	---	---	---	---	---	---	---	---
15	11.5	10.0	6.5	4.5	---	---	---	---	---	---	---	---
16	10.0	7.5	6.0	4.0	---	---	---	---	---	---	---	---
17	11.5	7.5	7.0	4.5	---	---	---	---	---	---	---	---
18	10.0	8.0	6.0	4.5	---	---	---	---	---	---	---	---
19	9.5	7.5	5.5	3.5	---	---	---	---	---	---	---	---
20	8.5	7.5	5.5	3.5	---	---	---	---	---	---	---	---
21	8.5	7.5	5.0	3.5	---	---	---	---	---	---	---	---
22	8.0	7.0	5.0	2.5	---	---	---	---	---	---	---	---
23	8.5	7.0	5.0	3.5	---	---	---	---	---	---	---	---
24	8.5	7.5	6.0	3.5	---	---	---	---	---	---	---	---
25	9.5	6.5	6.5	3.5	---	---	---	---	---	---	---	---
26	11.0	7.0	5.5	3.5	---	---	---	---	---	---	---	---
27	10.0	7.5	5.0	3.5	---	---	---	---	---	---	---	---
28	10.0	7.5	5.0	3.5	---	---	---	---	---	---	---	---
29	11.0	7.5	6.0	3.5	---	---	---	---	---	---	---	---
30	10.0	7.5	6.0	3.0	---	---	---	---	---	---	---	---
31	11.0	7.5	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	11.0	2.5	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	19.0	13.5	24.0	17.5	---	---	---	---	---	---
2	---	---	21.5	14.5	23.0	18.5	---	---	---	---	---	---
3	---	---	22.5	15.5	21.5	18.5	---	---	---	---	---	---
4	---	---	21.0	17.0	20.0	18.0	---	---	---	---	---	---
5	---	---	22.0	17.5	22.0	17.5	---	---	---	---	---	---
6	---	---	20.0	17.5	24.5	18.0	---	---	---	---	---	---
7	---	---	21.0	17.0	26.0	19.5	---	---	---	---	---	---
8	---	---	23.0	17.5	27.5	20.5	---	---	---	---	---	---
9	---	---	21.0	18.5	25.0	21.5	---	---	---	---	---	---
10	---	---	22.0	17.5	25.0	20.5	---	---	---	---	---	---
11	---	---	20.5	16.0	25.0	19.5	---	---	---	---	---	---
12	---	---	18.0	15.5	23.0	19.5	---	---	---	---	---	---
13	---	---	16.0	12.5	26.0	19.5	---	---	---	---	---	---
14	---	---	18.0	11.5	25.0	19.5	---	---	---	---	---	---
15	---	---	19.0	13.5	27.0	20.0	---	---	---	---	---	---
16	---	---	18.5	15.5	27.0	21.5	---	---	---	---	---	---
17	---	---	18.0	15.5	25.0	21.5	---	---	---	---	---	---
18	---	---	21.0	15.5	25.0	21.0	---	---	---	---	---	---
19	---	---	20.5	16.5	26.0	20.5	---	---	---	---	---	---
20	---	---	20.0	16.5	27.5	20.5	---	---	---	---	---	---
21	---	---	18.0	16.5	25.5	21.5	---	---	---	---	---	---
22	---	---	18.0	15.5	27.0	20.5	---	---	---	---	---	---
23	---	---	21.0	15.5	27.0	21.5	---	---	---	---	---	---
24	16.5	14.5	23.0	16.5	27.5	21.5	---	---	---	---	---	---
25	14.5	13.0	23.0	17.5	25.5	22.5	---	---	---	---	---	---
26	13.0	11.5	24.0	17.5	25.5	20.5	---	---	---	---	---	---
27	16.0	10.5	24.5	18.5	26.0	19.5	---	---	---	---	---	---
28	14.0	12.5	24.5	18.5	25.5	19.5	---	---	---	---	---	---
29	16.0	12.5	23.0	19.5	---	---	25.0	23.5	---	---	---	---
30	16.0	12.5	24.0	18.5	---	---	27.0	22.5	---	---	---	---
31	---	---	21.5	19.5	---	---	---	---	---	---	---	---
MONTH	---	---	24.5	11.5	---	---	---	---	---	---	---	---

07126390 LOCKWOOD CANYON CREEK NEAR THATCHER, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	3510	3660	---	---	3220	3410	3430	3550	---	---	982
2	---	3520	3620	---	---	3250	3410	3430	3560	---	---	1090
3	---	3520	3640	---	---	3250	3420	3430	3470	---	---	1140
4	---	3530	3650	---	---	3260	3430	3430	3340	---	---	1130
5	---	3530	3710	---	---	3260	3410	3450	3280	---	---	1170
6	---	3530	3780	---	3160	3250	3410	3460	3270	---	---	1220
7	---	3530	---	---	3180	3230	3410	3460	3290	---	---	1330
8	---	3540	---	---	3200	3240	3410	3480	3010	---	---	1420
9	---	3540	---	---	3220	3220	3410	3480	609	---	---	1510
10	3760	3550	---	---	3170	3230	3400	3490	667	---	---	1640
11	3570	3540	---	---	3180	3230	3400	3480	693	---	---	1800
12	3570	3540	---	---	3130	3240	3400	3500	733	---	---	1920
13	3600	3550	---	---	3230	3230	3400	3500	813	---	2340	2040
14	3550	3540	---	---	---	3240	3430	---	895	---	2230	2170
15	3540	3540	---	---	---	3230	3430	---	962	---	2260	2270
16	3540	3550	---	---	2960	3250	3430	---	1080	---	2270	2350
17	3550	3550	---	---	2780	---	3440	3540	---	---	2290	2450
18	3570	3550	---	---	2760	---	3450	3530	---	---	2320	2530
19	3550	3570	3680	---	2780	---	3460	3500	---	---	---	2600
20	3550	3560	3730	---	3040	---	3450	3500	---	3230	---	2670
21	3560	3580	3740	---	3050	---	3440	3500	---	3360	---	2720
22	3540	3630	3710	---	3050	---	3430	---	---	3350	2420	2780
23	3530	3660	3710	---	3030	---	3430	---	2080	3370	1680	2830
24	3520	3660	3560	---	3050	---	3430	3530	2210	3380	1390	2890
25	3520	3640	3440	---	3050	---	3440	3520	2330	---	1420	2940
26	3510	3640	3620	---	3110	---	3450	3520	2440	---	1450	2980
27	3510	3570	3650	---	3190	---	3470	3530	2520	---	1490	3010
28	3520	3590	---	---	3190	3380	3450	3530	---	---	1540	3030
29	3520	3590	---	---	---	3380	3440	3530	---	---	1590	3070
30	3520	3540	---	---	---	3380	3440	3530	---	---	1630	3090
31	3520	---	---	---	---	3390	---	3530	---	---	1650	---
MEAN	---	3563	---	---	---	---	3428	---	---	---	---	2159

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	11.0	8.5	4.5	3.5	---	---	---	---	9.5	4.5
2	---	---	10.5	8.0	4.0	2.5	---	---	---	---	8.5	4.5
3	---	---	10.5	7.5	4.0	2.5	---	---	---	---	10.0	6.5
4	---	---	10.0	7.0	4.0	2.5	---	---	---	---	11.0	5.5
5	---	---	9.0	7.5	4.0	2.5	---	---	---	---	10.0	6.5
6	---	---	10.0	7.5	4.0	2.5	---	---	2.5	1.5	10.0	5.5
7	---	---	9.5	6.5	4.0	2.0	---	---	2.5	1.5	10.0	6.0
8	---	---	9.0	6.5	---	---	---	---	3.0	1.5	10.0	6.5
9	---	---	8.0	6.5	---	---	---	---	2.5	1.5	10.0	7.5
10	13.5	10.5	7.0	5.5	---	---	---	---	2.0	1.5	9.0	6.5
11	15.0	10.5	7.0	4.5	---	---	---	---	3.0	1.5	11.0	6.5
12	14.5	10.5	6.0	5.0	---	---	---	---	3.0	2.5	10.5	7.5
13	13.0	10.5	6.5	4.5	---	---	---	---	3.0	1.5	10.0	7.5
14	13.0	10.5	5.5	3.5	---	---	---	---	---	---	9.5	6.5
15	14.0	9.5	5.5	3.5	---	---	---	---	3.0	1.5	10.0	6.5
16	13.0	9.5	5.5	2.5	---	---	---	---	3.5	1.0	11.0	7.5
17	13.5	11.5	5.0	4.0	---	---	---	---	5.5	2.0	---	---
18	12.0	11.0	5.0	3.5	---	---	---	---	6.0	1.5	---	---
19	13.0	10.0	4.0	2.5	.5	---	---	---	7.0	3.0	---	---
20	13.5	9.5	4.5	2.5	.5	.5	---	---	7.0	4.5	---	---
21	13.5	10.5	4.5	2.5	.5	.5	---	---	6.0	3.5	---	---
22	13.0	10.5	4.0	2.5	.5	.5	---	---	8.0	2.5	---	---
23	14.0	10.5	4.5	3.5	.5	.5	---	---	7.5	4.5	---	---
24	13.0	10.0	5.0	3.5	.5	.5	---	---	10.0	4.5	---	---
25	13.0	10.0	6.5	3.5	.5	.5	---	---	10.0	4.5	---	---
26	13.0	10.5	6.0	3.5	.5	.5	---	---	10.5	5.5	---	---
27	13.0	10.0	6.0	3.5	.5	.5	---	---	9.0	6.5	---	---
28	12.5	10.0	4.5	2.5	---	---	---	---	10.0	5.5	12.0	10.5
29	12.0	10.0	6.0	3.5	---	---	---	---	---	---	12.5	10.5
30	12.0	9.0	4.0	2.5	---	---	---	---	---	---	13.0	11.5
31	11.0	9.0	---	---	---	---	---	---	---	---	13.0	11.5
MONTH	---	---	11.0	2.5	---	---	---	---	---	---	---	---

07126390 LOCKWOOD CANYON CREEK NEAR THATCHER, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.5	11.5	16.0	14.0	15.5	15.0	---	---	---	---	18.5	14.0
2	12.5	10.5	16.0	15.0	16.0	15.5	---	---	---	---	21.5	16.5
3	12.5	7.0	16.0	15.0	17.0	16.0	---	---	---	---	21.5	17.5
4	8.5	6.5	17.0	15.5	18.0	17.0	---	---	---	---	21.0	18.0
5	9.0	7.5	17.0	15.5	18.5	18.0	---	---	---	---	22.0	17.5
6	9.5	9.0	16.0	14.5	19.5	18.5	---	---	---	---	19.5	17.0
7	11.0	9.5	16.5	15.0	20.0	19.5	---	---	---	---	18.5	16.5
8	11.0	10.5	16.5	15.0	20.0	14.0	---	---	---	---	21.5	16.0
9	11.0	10.0	15.0	13.0	16.5	9.5	---	---	---	---	20.5	17.0
10	12.0	10.5	14.5	13.0	16.5	13.5	---	---	---	---	20.0	17.0
11	12.5	11.0	15.0	14.0	23.0	14.0	---	---	---	---	20.0	16.0
12	13.0	12.0	15.5	14.0	24.0	15.5	---	---	---	---	21.0	16.0
13	13.5	11.5	15.5	14.5	22.5	17.5	---	---	25.5	21.5	19.5	16.5
14	11.5	10.0	---	---	23.5	17.5	---	---	24.5	22.0	20.5	17.5
15	11.5	9.5	---	---	26.0	18.5	---	---	26.5	20.5	21.0	17.0
16	12.0	11.0	---	---	25.0	19.5	---	---	27.0	21.0	21.5	17.5
17	12.0	11.0	14.5	12.5	---	---	---	---	27.0	21.5	20.5	17.0
18	11.0	9.5	13.5	11.5	---	---	---	---	27.5	21.5	20.0	17.0
19	11.5	10.0	14.5	13.5	---	---	---	---	---	---	20.0	16.5
20	12.0	10.5	15.5	14.5	---	---	24.5	21.5	---	---	20.0	16.5
21	13.0	11.5	16.5	15.5	---	---	25.5	20.5	---	---	20.0	17.5
22	13.5	12.5	---	---	---	---	27.0	21.0	26.0	21.0	19.0	17.5
23	14.5	13.0	---	---	25.0	20.5	27.5	21.5	22.5	20.0	19.0	17.0
24	14.5	13.5	15.5	14.0	24.0	20.0	27.5	22.0	25.0	20.0	18.5	15.5
25	14.5	14.0	15.0	14.5	25.5	20.0	---	---	25.5	21.0	17.5	14.5
26	14.0	13.0	16.0	15.0	25.5	21.0	---	---	23.5	21.0	17.0	14.0
27	13.5	11.5	16.0	14.5	27.5	20.5	---	---	24.0	20.0	17.5	13.5
28	13.5	12.0	15.5	14.5	---	---	---	---	23.5	20.0	15.5	14.0
29	14.5	12.0	15.0	14.5	---	---	---	---	23.5	19.5	15.0	13.0
30	15.5	14.0	15.0	14.5	---	---	---	---	23.5	20.5	16.0	12.0
31	---	---	15.5	15.0	---	---	---	---	24.0	14.5	---	---
MONTH	15.5	6.5	---	---	---	---	---	---	---	---	22.0	12.0

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3120	3200	3150	3380	2300	3050	2890	3160	2130	3010	3520	---
2	3150	3200	3020	3370	2430	3050	2920	3170	2220	---	3510	---
3	3160	3190	3050	3250	2580	3040	2950	3100	2280	---	3520	3340
4	3180	3160	3110	3250	2660	3050	2990	1190	2370	---	3510	3340
5	3200	3050	3140	3220	2740	3060	3020	1280	2410	---	3510	3330
6	3220	2980	3130	3190	2810	3080	3030	1490	2460	---	3510	---
7	3230	3040	3110	3160	2880	3080	3040	1230	2530	---	3510	---
8	3250	3120	3120	3120	2950	3080	3040	1280	2560	---	3520	---
9	3250	3130	3140	3090	2980	3090	3070	1480	2590	---	3510	---
10	3260	3140	3140	3110	3000	3060	3100	1680	2560	---	3510	---
11	3210	3170	3170	3170	3010	3050	3130	1830	2590	---	3500	---
12	3210	3170	3200	3190	3000	3120	3160	1960	2620	---	3520	---
13	3210	3220	3210	3180	3000	3130	3150	2050	2660	---	3520	---
14	3220	3220	3230	3090	2960	3150	3130	2140	2710	---	3510	---
15	3230	3220	3250	3110	2960	3170	3090	2230	2730	---	3500	---
16	3230	3210	3260	3110	2910	3180	3080	2320	2770	---	3490	3400
17	3240	3200	3270	3110	2870	3170	3090	2400	2620	---	3500	3430
18	3250	3190	3260	3130	2910	3110	3110	2470	2810	---	3490	3450
19	3260	3200	3240	3130	2930	3010	3130	2540	2860	---	3480	3440
20	3160	3200	3260	3120	2940	3050	3150	2530	2910	---	3280	3440
21	2800	3210	3280	3120	2960	3090	3150	2500	2920	---	3380	3440
22	2780	3210	3290	3130	3000	3100	3160	1780	2940	---	3440	3450
23	2820	3200	3290	3140	2990	3050	3170	662	2980	---	3450	3460
24	2930	3210	3300	3140	2980	2940	3180	944	3010	---	3450	3470
25	3060	3200	3300	3110	2980	2910	3180	958	3020	---	3350	3480
26	3120	3210	3320	2930	3010	2910	3180	1290	3030	---	3170	3480
27	3130	3210	3340	2210	3020	2960	3180	1530	3020	---	3240	3490
28	3150	3210	3350	2380	3020	2960	3160	1710	3020	---	3250	3510
29	3170	3220	3360	2570	---	2940	3170	1780	3020	3520	3410	3520
30	3180	3230	3370	2720	---	2920	3170	1860	3030	3520	3280	3530
31	3200	---	3360	2810	---	2890	---	2010	---	3520	3270	---
MEAN	3148	3177	3226	3056	2885	3047	3099	1889	2719	---	3439	---

07126390 LOCKWOOD CANYON CREEK NEAR THATCHER, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.0	12.0	9.5	7.5	2.5	1.5	.0	.0	3.0	1.5	6.5	3.0
2	16.5	12.5	7.5	6.5	2.0	1.5	.0	.0	3.5	2.0	6.5	3.0
3	14.0	13.0	7.5	6.0	2.0	1.0	.0	.0	4.0	3.0	8.0	3.5
4	15.0	12.5	7.0	5.5	2.0	1.5	.0	.0	3.5	3.0	8.0	4.5
5	14.5	12.5	7.0	3.0	2.0	1.5	.0	.0	4.0	3.0	9.0	5.0
6	16.0	12.5	7.0	3.0	2.5	1.5	.0	.0	4.5	3.5	9.5	5.5
7	16.5	12.5	7.0	5.0	2.5	2.0	.0	.0	4.5	3.5	10.0	6.0
8	15.0	12.5	6.5	4.5	2.5	1.5	.0	.0	5.0	3.5	8.0	6.5
9	14.0	13.0	5.0	3.5	2.0	2.0	.0	.0	5.0	3.5	6.5	5.5
10	14.5	12.0	4.5	3.0	2.5	2.0	.0	.0	5.0	3.5	7.0	4.0
11	13.5	9.5	5.0	2.5	3.5	2.0	.0	.0	5.5	3.0	7.5	3.5
12	9.5	8.0	4.0	2.0	4.0	3.5	.0	.0	5.0	3.5	9.5	5.0
13	10.5	7.0	4.0	1.5	3.5	2.5	.0	.0	5.5	4.0	9.5	5.5
14	11.0	7.5	4.5	3.0	3.0	2.5	.0	.0	5.0	3.0	9.0	6.5
15	11.0	7.5	5.0	2.5	2.5	2.0	.0	.0	5.0	2.5	8.5	7.0
16	10.5	8.0	5.0	3.0	2.0	1.0	.0	.0	5.0	3.5	9.5	7.0
17	10.5	8.0	6.0	3.0	1.0	.5	.0	.0	5.5	3.0	8.0	6.0
18	11.5	8.0	5.0	4.0	.5	.0	.5	.0	5.0	4.0	10.5	5.5
19	11.0	9.5	6.5	4.5	1.0	.5	.0	.0	4.0	2.5	9.0	6.0
20	10.5	9.5	6.5	4.5	.5	.5	.0	.0	4.0	2.0	8.0	6.0
21	11.5	7.5	6.0	4.0	.5	.0	.0	.0	4.0	2.5	10.5	6.0
22	10.0	7.5	5.0	4.0	.5	.0	.0	.0	4.5	2.5	8.0	5.5
23	11.0	8.0	5.5	3.5	.5	.0	.0	.0	5.5	3.0	6.0	3.0
24	12.0	9.0	5.0	3.0	.5	.0	.0	.0	5.5	2.5	6.0	3.5
25	12.0	9.0	4.5	3.0	.5	.0	.0	.0	6.0	4.0	8.0	4.0
26	12.0	9.5	4.0	2.0	.5	.0	1.0	.0	6.5	5.0	9.5	4.5
27	10.5	8.5	4.0	2.5	.5	.0	1.0	.0	6.0	4.5	7.5	4.5
28	10.5	8.5	4.0	3.0	.5	.0	1.5	.5	5.5	3.5	4.0	2.0
29	11.5	8.5	4.5	3.0	.0	.0	2.0	1.0	---	---	5.5	2.0
30	11.0	8.5	3.5	2.5	.0	.0	2.5	1.5	---	---	6.0	3.0
31	10.0	9.0	---	---	.0	.0	3.0	1.0	---	---	10.0	4.0
MONTH	16.5	7.0	9.5	1.5	4.0	.0	3.0	.0	6.5	1.5	10.5	2.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	6.0	20.5	16.0	22.5	18.0	24.5	20.0	27.5	24.0	---	---
2	10.5	6.0	18.5	16.0	23.0	19.0	---	21.0	27.5	24.0	---	---
3	10.0	6.5	15.5	10.0	20.5	18.0	---	---	27.0	24.0	22.5	21.0
4	10.0	7.5	10.0	4.5	22.5	16.5	---	---	25.5	23.5	21.5	19.5
5	9.0	7.5	11.0	7.5	23.5	18.0	---	---	26.5	22.5	22.0	19.0
6	10.5	7.5	12.5	10.5	24.0	19.0	---	---	27.0	23.0	---	---
7	10.5	8.0	16.5	9.5	25.0	20.0	---	---	25.5	23.5	---	---
8	12.0	7.5	20.0	13.0	24.0	20.5	---	---	25.0	23.0	---	---
9	13.0	9.0	21.0	14.5	22.0	20.5	---	---	24.5	22.5	---	---
10	15.5	9.5	21.0	15.5	24.0	19.0	---	---	26.5	22.0	---	---
11	14.0	10.0	21.0	16.5	24.5	20.0	---	---	26.0	23.0	---	---
12	12.0	9.0	21.0	16.5	25.5	21.0	---	---	25.0	23.0	---	---
13	8.5	7.0	21.5	16.5	26.5	21.5	---	---	26.5	22.5	---	---
14	11.5	6.0	22.0	17.5	25.5	21.0	---	---	26.5	22.5	---	---
15	14.0	8.0	22.0	17.5	25.0	21.5	---	---	26.5	22.0	---	---
16	16.0	10.0	23.5	18.0	25.5	21.0	---	---	25.5	21.5	19.5	17.0
17	16.0	11.0	23.5	18.5	24.0	21.0	---	---	25.5	21.5	18.5	17.0
18	17.5	12.5	22.0	18.5	25.0	20.5	---	---	24.5	21.0	19.5	16.5
19	17.0	12.5	20.0	18.5	26.0	21.0	---	---	25.5	21.5	20.0	17.0
20	14.5	12.0	20.0	17.0	25.0	21.5	---	---	26.0	22.0	19.0	17.0
21	15.0	11.0	18.5	17.0	24.5	21.0	---	---	25.5	22.0	19.5	16.5
22	15.5	10.5	19.0	2.5	24.5	20.0	---	---	23.5	21.5	19.0	16.0
23	16.5	11.5	16.5	10.0	23.0	20.5	---	---	22.0	20.0	19.0	15.5
24	16.5	12.5	19.5	14.0	24.0	21.0	---	---	23.0	19.0	18.5	15.5
25	18.5	13.5	19.5	13.0	24.0	21.0	---	---	22.5	20.0	17.0	15.5
26	18.5	14.0	20.0	15.0	24.5	21.0	---	---	21.0	19.5	18.0	15.0
27	17.0	15.0	20.0	15.5	26.0	21.5	---	---	21.0	19.0	18.0	15.0
28	20.0	14.0	18.5	16.0	26.0	21.5	---	---	22.5	18.0	17.5	15.0
29	20.5	15.0	19.5	15.0	23.0	21.0	27.5	---	23.0	19.0	17.5	14.5
30	20.0	16.0	21.5	15.5	23.0	20.5	28.0	23.5	25.0	19.0	17.0	14.0
31	---	---	22.5	17.0	---	---	28.0	24.0	22.5	18.5	---	---
MONTH	20.5	6.0	23.5	2.5	26.5	16.5	---	---	27.5	18.0	---	---

07126415 RED ROCK CANYON CREEK AT MOUTH NEAR THATCHER, CO

LOCATION.--Lat 37°30'54", long 103°43'25", in NW¼SE¼ sec.18, T.29 S., R.56 W., Las Animas County, Hydrologic Unit 11020010, on left bank, 200 ft downstream from Welsh Canyon, 0.3 mi upstream from mouth, and 21 mi east of Thatcher.

DRAINAGE AREA.--48.6 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1983 to current year.

GAGE.--Water-stage recorder, and crest-stage gage. Elevation of gage is 4,510 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharge: May 22-28. Records below 10 ft^3/s are fair, records between 10 ft^3/s and 300 ft^3/s, and those for estimated daily discharges, are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,530 ft^3/s, May 22, 1987, gage height, 10.09 ft, from floodmark, from rating curve extended above 10 ft^3/s on the basis of three slope-area measurements of peak flows; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5.0 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 3	2245	111	6.53	May 22	1715	*a1,530	*b10.09
May 4	0830	89	6.42				

No flow most of time.
a-From rating curve extended above 10 ft^3/s on the basis of three slope-area measurements of peak flows.
b-From floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	12	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	30	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	3.3	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.24	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	84	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	12	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	4.6	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	2.5	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	1.0	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.30	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.10	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	---
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.16	.00	.00	.00	.00	.00	.00	150.04	.00	.00	.00	.00
MEAN	.01	.00	.00	.00	.00	.00	.00	4.84	.00	.00	.00	.00
MAX	.15	.00	.00	.00	.00	.00	.00	84	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.3	.0	.0	.0	.0	.0	.0	298	.0	.0	.0	.0

CAL YR 1986 TOTAL 306.65 MEAN .84 MAX 90 MIN .00 AC-FT 608
WTR YR 1987 TOTAL 150.20 MEAN .41 MAX 84 MIN .00 AC-FT 298

07126415 RED ROCK CANYON CREEK AT MOUTH NEAR THATCHER, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1983 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1983 to current year.
WATER TEMPERATURE: May 1983 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Daily data that are not published are either missing or of poor quality or for periods of no flow. Maximum and minimum specific conductance and water temperature are published only for the period of flow during the day that was recorded.

EXTREMES FOR PERIOD OF FLOW.--
SPECIFIC CONDUCTANCE: Maximum, 3,100 microsiemens June 28, 1983; minimum, 90 microsiemens Aug. 22, 1986.
WATER TEMPERATURE: Maximum, 30.5°C Aug. 13, 1983; minimum, 7.0°C May 3, 1987.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 2,450 microsiemens May 4; minimum, 110 microsiemens May 3.
WATER TEMPERATURE: Maximum, 18.0°C May 6; minimum, 7.0°C May 3.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE WATER (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JUL 23...	1550	8.0	24.0	22	3.6	69	49	0.90

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JUL 23...	<0.10	4.5	154	0.43	0.05	52	4

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
MAY 28...	1010	0.11	2090	19.0	10.2	840	180	96	170	3	11	170

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAY 28...	990	20	0.50	15	1800	1580	2.45	0.53	0.28	0.01	10	30

07126415 RED ROCK CANYON CREEK AT MOUTH NEAR THATCHER, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---
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28	---	---	---	---	3100	2000	---	---	---	---	---	---
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TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
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12	---	---	---	---	---	---	---	---	30.5	20.5	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
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24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	25.5	19.0	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

07126415 RED ROCK CANYON CREEK AT MOUTH NEAR THATCHER, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	140	110	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
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9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
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15	---	---	---	---	---	---	390	200	---	---	---	---
16	---	---	---	---	---	---	400	360	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	480	410	---	---
22	---	---	---	---	---	---	---	---	520	280	---	---
23	---	---	---	---	---	---	---	---	430	320	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	260	240	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
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31	---	---	---	---	---	---	---	---	---	---	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	21.0	20.0	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
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15	---	---	---	---	---	---	20.0	18.5	---	---	---	---
16	---	---	---	---	---	---	22.5	18.0	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
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21	---	---	---	---	---	---	---	---	19.0	18.0	---	---
22	---	---	---	---	---	---	---	---	19.5	17.0	---	---
23	---	---	---	---	---	---	---	---	28.5	18.5	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	19.5	19.0	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
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07126415 RED ROCK CANYON CREEK AT MOUTH NEAR THATCHER, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
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29	---	---	---	---	---	---	150	100	---	---	---	---
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TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
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29	---	---	---	---	---	---	21.0	16.0	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
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07126415 RED ROCK CANYON CREEK AT MOUTH NEAR THATCHER, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	---	---	290	270	---	---	---	---
2	---	---	---	---	---	---	330	250	260	140	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
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12	---	---	---	---	---	---	---	---	240	240	---	---
13	---	---	---	---	---	---	---	---	300	280	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
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18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	480	430	---	---	---	---
20	---	---	---	---	---	---	440	260	---	---	---	---
21	---	---	---	---	---	---	380	350	---	---	---	---
22	---	---	---	---	---	---	---	---	190	90	---	---
23	---	---	---	---	---	---	---	---	320	200	---	---
24	---	---	---	---	---	---	---	---	290	280	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
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31	---	---	---	---	---	---	---	---	---	---	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	---	---	13.0	12.0	---	---	---	---
2	---	---	---	---	18.0	17.0	25.0	14.0	18.5	16.5	---	---
3	---	---	---	---	16.0	15.5	---	---	23.0	17.0	---	---
4	---	---	---	---	---	---	---	---	23.0	19.5	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
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11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	21.5	20.5	---	---
13	---	---	---	---	---	---	---	---	20.5	20.0	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
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18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	18.5	15.5	---	---	---	---
20	---	---	---	---	---	---	26.0	17.0	---	---	---	---
21	---	---	---	---	---	---	19.0	17.5	---	---	---	---
22	---	---	---	---	---	---	---	---	26.0	19.0	---	---
23	---	---	---	---	---	---	---	---	26.5	19.5	---	---
24	---	---	---	---	---	---	---	---	21.5	18.5	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
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07126415 RED ROCK CANYON CREEK AT MOUTH NEAR THATCHER, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	190	110	---	---	---	---	---	---	---	---
4	---	---	2450	220	---	---	---	---	---	---	---	---
5	---	---	1050	880	---	---	---	---	---	---	---	---
6	---	---	1080	1050	---	---	---	---	---	---	---	---
7	---	---	1070	1070	---	---	---	---	---	---	---	---
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31	---	---	---	---	---	---	---	---	---	---	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	---	---	---	---
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19	---	---	---	---	---	---	---	---	---	---	---	---
20	11.5	11.0	---	---	---	---	---	---	---	---	---	---
21	11.0	9.0	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
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07126415 RED ROCK CANYON CREEK AT MOUTH NEAR THATCHER, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	10.0	7.0	---	---	---	---	---	---	---	---
4	---	---	9.0	7.5	---	---	---	---	---	---	---	---
5	---	---	12.5	9.0	---	---	---	---	---	---	---	---
6	---	---	18.0	11.0	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
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07126470 CHACUACO CREEK AT MOUTH NEAR TIMPAS, CO

LOCATION.--Lat 37°32'38", long 103°37'54", in SE¼SE¼ Sec. 1, T. 28 S., R. 56 W., Las Animas County, Hydrologic Unit 11020010, at Red Rocks Ranch, 1.5 mi upstream of mouth, 3.3 mi upstream from Bent Canyon Creek, and 21 mi southeast of Timpas.

DRAINAGE AREA.--424 mi^2

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1983 to current year.

REVISED RECORDS.--WDR CO-85-1: 1984(M).

GAGE.--Water-stage recorder. Elevation of gage is 4,350 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: May 27-28, and June [illegible]. Records good except for estimated daily discharges, and the period, Jan. 29-30, which are fair.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of May 19, 1955, and June 17, 1965, reached discharges of 3,170 ft^3/s, and 38,900 ft^3/s, respectively, at a different site, from slope-area measurements of peak flows.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,840 ft^3/s, Aug. 2, 1984, gage height, 9.16 ft from rating curve based on four slope area measurements of peak flow; maximum gage height, 9.70 ft, May 2, 1986 (backwater from debris); no flow most of the time.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 29	2230	190	5.02	May 22	1745	403	5.95
May 4	0130	366	5.77	May 22	1900	*824	*7.27
May 4	1200	99	4.61	May 24	0800	415	6.00
May 14	2015	366	5.77				

No flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.5	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	23	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	99	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	4.5	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	27	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	7.6	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	2.8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	2.5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	75	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	18	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	126	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	39	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	18	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	8.3	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	1.3	.28	.00	.00	.00
29	.00	.00	.00	14	---	.00	.00	.00	14	.00	.00	.00
30	.00	.00	.00	33	---	.00	.00	.00	.15	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	5.30	.00	.00	47.00	.00	.00	.00	446.70	14.43	1.50	.00	.00
MEAN	.17	.00	.00	1.52	.00	.00	.00	14.4	.48	.05	.00	.00
MAX	2.8	.00	.00	33	.00	.00	.00	126	14	1.5	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	11	.0	.0	93	.0	.0	.0	886	29	3.0	.0	.0

CAL YR 1986 TOTAL 738.22 MEAN 2.02 MAX 304 MIN .00 AC-FT 1460
WTR YR 1987 TOTAL 514.93 MEAN 1.41 MAX 126 MIN .00 AC-FT 1020

07126470 CHACAUCO CREEK NEAR MOUTH NEAR TIMPAS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1983 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1983 to current year.
WATER TEMPERATURE: June 1983 to current year.
SUSPENDED SEDIMENT: June 1983 to current year.

INSTRUMENTATION.--Water-quality monitor since June 1983. Automatic pumping sediment sampler since June 1983.

REMARKS.--Estimated daily load and concentrations for 1986 water year: May 4-5, June 2-4, 11, July 22 Aug. 24-25 and Sept. 6. For 1987 Water year: Oct. 21, May 23-28 and June 30. Daily data that are not published are either missing, there was no flow during the day or of poor quality. Maximum and minimum specific conductance and water temperature are published only for the period of flow during the day that was recorded.

Monitor data for 1984-87 are published in this report. There was no flow for 1983.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,210 microsiemens Aug. 13, 1984; minimum, 180 microsiemens Aug. 2,1986.
WATER TEMPERATURE: Maximum, 27.0°C July 11, 16, 1984 and May 25, 1987; minimum, 4.0°C Oct.4, 1984.
SEDIMENT CONCENTRATIONS: Maximum daily, 7,860 mg/l May 2, 1986; minimum daily no flow most of time.
SEDIMENT LOADS: Maximum daily, 14,900 tons May 2, 1986; minimum daily, no flow most of time.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,070 microsiemens May 3; minimum, 370 microsiemens May 3.
WATER TEMPERATURE: Maximum, 27.0°C May 25; minimum, 7.5°C May 4-5.
SEDIMENT CONCENTRATIOS: Maximum daily, 2,960 mg/l May 22; minimum daily, no flow most of time.
SEDIMENT LOADS: Maximum daily, 2,770 tons May 22; minimum daily, no flow most of time.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY					
02...	1535	120	4260	1380	96
02...	1815	83	3790	849	98
02...	2010	68	3140	577	98
JUN					
05...	1040	1.5	99	0.40	--
JUL					
21...	1240	1.3	159	0.56	--

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	550	410	---	---
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10	---	---	---	---	---	---	580	300	---	---	---	---
11	---	---	---	---	---	---	825	580	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	1210	795	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	645	270	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
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21	---	---	---	---	---	---	---	---	500	320	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
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07126470 CHACAUCO CREEK NEAR MOUTH NEAR TIMPAS, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	20.0	20.0	---	---
2	---	---	---	---	---	---	---	---	18.5	17.0	---	---
3	---	---	---	---	---	---	---	---	18.5	18.0	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
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10	---	---	---	---	---	---	19.5	19.0	---	---	---	---
11	---	---	---	---	---	---	27.0	19.0	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	20.5	19.5	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	21.0	19.5	---	---	---	---
16	---	---	---	---	---	---	27.0	19.0	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
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21	---	---	---	---	---	---	---	---	19.0	18.5	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
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SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	1050	320	---	---	---	---	---	---	---	---	---	---
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07126470 CHACAUCO CREEK NEAR MOUTH NEAR TIMPAS, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	820	300	---	---
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TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	---	---	---	---
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4	9.5	4.0	---	---	---	---	---	---	---	---	---	---
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07126470 CHACAUCO CREEK NEAR MOUTH NEAR TIMPAS, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	20.0	17.5	---	---
3	---	---	---	---	---	---	---	---	20.0	16.5	---	---
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21	---	---	---	---	---	---	17.5	17.0	---	---	---	---
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23	---	---	---	---	---	---	17.0	17.0	---	---	---	---
24	---	---	---	---	---	---	18.0	17.5	---	---	---	---
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30	---	---	---	---	---	---	20.5	20.5	---	---	---	---
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SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	950	290	1060	980	---	---	510	180	---	---
3	---	---	380	350	1180	970	---	---	580	560	---	---
4	---	---	---	---	---	---	---	---	---	---	520	450
5	---	---	---	---	---	---	---	---	---	---	---	---
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07126470 CHACAUCO CREEK NEAR MOUTH NEAR TIMPAS, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	11.5	---	16.5	14.0	---	---	17.5	17.0	---	---
3	---	---	10.5	10.0	22.0	14.0	---	---	17.5	15.0	---	---
4	---	---	---	---	18.0	16.0	---	---	---	---	16.0	12.5
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SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	---	---	---	---
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07126470 CHACAUCO CREEK NEAR MOUTH NEAR TIMPAS, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
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3	---	---	1070	370	---	---	---	---	---	---	---	---
4	---	---	495	445	---	---	---	---	---	---	---	---
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22	---	---	1020	390	---	---	---	---	---	---	---	---
23	---	---	422	411	---	---	---	---	---	---	---	---
24	---	---	876	441	---	---	---	---	---	---	---	---
25	---	---	635	539	---	---	---	---	---	---	---	---
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TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	---	---	---	---
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20	11.0	10.0	---	---	---	---	---	---	---	---	---	---
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30	---	---	---	---	---	---	---	---			---	---
31	---	---			---	---	---	---			---	---

07126470 CHACAUCO CREEK NEAR MOUTH NEAR TIMPAS, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	9.5	7.5	---	---	---	---	---	---	---	---
4	---	---	10.0	7.5	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	16.5	9.0	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	26.5	11.5	---	---	---	---	---	---	---	---
23	---	---	13.5	13.0	---	---	---	---	---	---	---	---
24	---	---	16.5	13.0	---	---	---	---	---	---	---	---
25	---	---	27.0	9.5	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	.00	---	---	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	.00	---	---	.00	---	---
5	.00	---	---	.00	---	---	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	.00	---	---	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	.00	---	---	.00	---	---
31	.00	---	---	---	---	---	.00	---	---
TOTAL	.00	---	---	.00	---	---	.00	---	---

07126470 CHACAUCO CREEK NEAR MOUTH NEAR TIMPAS, CO--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	.00	---	---	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	.00	---	---	.00	---	---
5	.00	---	---	.00	---	---	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	.00	---	---	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	---	---	---	.00	---	---
30	.00	---	---	---	---	---	.00	---	---
31	.00	---	---	---	---	---	.00	---	---
TOTAL	.00	---	---	.00	---	---	.00	---	---
		APRIL			MAY			JUNE	
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	304	7860	14900	57	---	1860
3	.00	---	---	24	2000	130	106	---	1210
4	.00	---	---	2.4	---	2.5	18	---	29
5	.00	---	---	.01	---	.00	1.4	---	.37
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	4.4	417	19
10	.00	---	---	.00	---	---	8.9	443	13
11	.00	---	---	.00	---	---	.05	---	.01
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	.00	---	---	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	.00	---	---	.00	---	---
31	---	---	---	.00	---	---	---	---	---
TOTAL	.00	---	---	330.41	---	---	195.75	---	---

07126470 CHACAUCO CREEK NEAR MOUTH NEAR TIMPAS, CO--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	44	1380	989	.00	---	---
3	.00	---	---	30	1300	177	.00	---	---
4	.00	---	---	5.5	285	5.7	34	1640	802
5	.00	---	---	.00	---	---	7.7	856	43
6	.00	---	---	.00	---	---	.04	---	.00
7	.00	---	---	.55	39	11	.00	---	---
8	.00	---	---	14	1470	135	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	47	1690	1350	.00	---	---	.00	---	---
21	5.3	300	4.3	.00	---	---	.00	---	---
22	.04	---	.00	.00	---	---	.00	---	---
23	.00	---	---	11	816	57	.00	---	---
24	.00	---	---	7.5	---	14	.00	---	---
25	.00	---	---	.13	---	.01	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	.00	---	---	.00	---	---
31	.00	---	---	.00	---	---	---	---	---
TOTAL	52.34	---	---	112.68	---	---	41.74	---	---

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

		OCTOBER			NOVEMBER			DECEMBER	
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	.00	---	---	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	.00	---	---	.00	---	---
5	.00	---	---	.00	---	---	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	2.8	56	3.8	.00	---	---	.00	---	---
21	2.5	---	.49	.00	---	---	.00	---	---
22	.00	---	---	.00	---	---	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	.00	---	---	.00	---	---
31	.00	---	---	---	---	---	.00	---	---
TOTAL	5.30	---	---	.00	---	---	.00	---	---

07126470 CHACAUCO CREEK NEAR MOUTH NEAR TIMPAS, CO--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	.00	---	---	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	.00	---	---	.00	---	---
5	.00	---	---	.00	---	---	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	.00	---	---	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	14	390	189	---	---	---	.00	---	---
30	33	806	143	---	---	---	.00	---	---
31	.00	---	---	---	---	---	.00	---	---
TOTAL	47.00	---	---	.00	---	---	.00	---	---
		APRIL			MAY			JUNE	
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	.00	---	---	.00	---	---
3	.00	---	---	23	486	178	.00	---	---
4	.00	---	---	99	1810	1090	.00	---	---
5	.00	---	---	4.5	80	.97	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	27	2040	1150	.00	---	---
15	.00	---	---	7.6	718	32	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	75	2960	2770	.00	---	---
23	.00	---	---	18	---	24	.00	---	---
24	.00	---	---	126	---	2070	.00	---	---
25	.00	---	---	39	---	58	.00	---	---
26	.00	---	---	18	---	7.8	.00	---	---
27	.00	---	---	8.3	---	1.8	.00	---	---
28	.00	---	---	1.3	---	.21	.28	135	9.9
29	.00	---	---	.00	---	---	14	1020	58
30	.00	---	---	.00	---	---	.15	---	.04
31	---	---	---	.00	---	---	---	---	---
TOTAL	.00	---	---	446.70	---	---	14.43	---	---

07126470 CHACAUCO CREEK NEAR MOUTH NEAR TIMPAS, CO--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	1.5	195	6.2	.00	---	---	.00	---	---
2	.00	---	---	.00	---	---	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	.00	---	---	.00	---	---
5	.00	---	---	.00	---	---	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	.00	---	---	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	.00	---	---	.00	---	---
31	.00	---	---	.00	---	---	---	---	---
TOTAL	1.50	---	---	.00	---	---	.00	---	---

07126480 BENT CANYON CREEK AT MOUTH NEAR TIMPAS, CO

LOCATION.-- Lat 37°35'19", long 103°38'51", in SE¼SE¼ sec.23, T.28 S., R.65 W., Las Animas County, Hydrologic Unit 11020010, on left bank 0.5 mi upstream from mouth, 0.6 mi southwest of Rourke Ranch house, 0.9 mi upstream from Iron Canyon, and 17 mi southeast of Timpas.

DRAINAGE AREA.--56.2 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,402 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair. This stream flows only from storm events.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,640 ft³/s, Aug. 21, 1984, gage height, 12.56 ft, from floodmark, result of slope-area measurement of peak flow; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 22	1815	*6.4	*3.94				

No flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.21	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	---
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.21	.00	.00	.00	.00
MEAN	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
MAX	.00	.00	.00	.00	.00	.00	.00	.21	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0

CAL YR 1986 TOTAL 16.75 MEAN .05 MAX 9.1 MIN .00 AC-FT 33
WTR YR 1987 TOTAL .21 MEAN .00 MAX .21 MIN .00 AC-FT .4

07126480 BENT CANYON CREEK NEAR MOUTH NEAR TIMPAS,CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1983 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1983 to current year.
WATER TEMPERATURE: July 1983 to current year.
SUSPENDED SEDIMENT: May 1983 to current year.

INSTRUMENTATION.--Water-quality monitor since July 1983. Automatic pumping sampler since May 1983.

REMARKS.--Daily specific conductance and water temperature for water years 1984-86 are published in this report. There was no flow in water year 1983 and the flow did not reach the probes in water year 1987. Daily water-quality monitor data that are not published are either missing, of too poor of quality or there was no flow. Daily sediment record is good for the 1986 water year except for periods of estimated record which are fair. Record is good for water year 1987.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,180 microsiemens, Sept. 14, 1984; minimum, 109 microsiemens, Aug. 1, 1984.
WATER TEMPERATURE: Maximum, 22.0°C, Aug. 22, 1984, Aug. 22, 1986; minimum, 10.5°C, July 1, 1986.
SEDIMENT CONCENTRATIONS: Maximum daily, 48,700 mg/l, July 15, 1984; minimum daily, no flow most of time.
SEDIMENT LOADS: Maximum daily, 21,100 tons, Aug. 22, 1984; minimum daily, no flow most of time.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: No flow by probes.
WATER TEMPERATURE: No flow by probes.
SEDIMENT CONCENTRATIONS: Maximum daily, 349 mg/l, May 22; no flow most of time.
SEDIMENT LOADS: Maximum daily, 5.4 tons, May 22; no flow most of time.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	180	109	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	1180	392
15	---	---	---	---	---	---	1090	788	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	332	144	---	---
22	---	---	---	---	---	---	---	---	430	352	---	---
23	---	---	---	---	---	---	---	---	372	370	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	540	389	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

07126480 BENT CANYON CREEK NEAR MOUTH NEAR TIMPAS,CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	19.5	19.0	---	---
2	---	---	---	---	---	---	---	---	19.0	18.5	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	12.5	12.0
15	---	---	---	---	---	---	18.0	16.5	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	19.0	18.0	---	---
22	---	---	---	---	---	---	---	---	22.0	17.5	---	---
23	---	---	---	---	---	---	---	---	19.5	17.0	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	20.5	19.0	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	730	375	---	---	---	---
2	---	---	---	---	---	---	---	---	572	533	---	---
3	---	---	---	---	---	---	---	---	619	596	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	810	810	---	---
23	---	---	---	---	---	---	---	---	520	600	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

07126480 BENT CANYON CREEK NEAR MOUTH NEAR TIMPAS CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	15.5	10.5	---	---	---	---
2	---	---	---	---	---	---	13.0	12.5	17.0	15.5	---	---
3	---	---	---	---	---	---	---	---	17.0	17.0	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	20.5	20.5	---	---
23	---	---	---	---	---	---	---	---	19.5	19.5	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

07126480 BENT CANYON CREEK NEAR MOUTH NEAR TIMPAS,CO--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	.00	---	---	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	.00	---	---	.00	---	---
5	.00	---	---	.00	---	---	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	.00	---	---	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	.00	---	---	.00	---	---
31	.00	---	---	---	---	---	.00	---	---
TOTAL	.00	---	---	.00	---	---	.00	---	---
		JANUARY			FEBRUARY			MARCH	
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	.00	---	---	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	.00	---	---	.00	---	---
5	.00	---	---	.00	---	---	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	.00	---	---	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	---	---	---	.00	---	---
30	.00	---	---	---	---	---	.00	---	---
31	.00	---	---	---	---	---	.00	---	---
TOTAL	.00	---	---	.00	---	---	.00	---	---

07126480 BENT CANYON CREEK NEAR MOUTH NEAR TIMPAS,CO--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	.00	---	---	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	.00	---	---	.00	---	---
5	.00	---	---	.00	---	---	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	.00	---	---	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	.00	---	---	.00	---	---
31	---	---	---	.00	---	---	---	---	---
TOTAL	.00	---	---	.00	---	---	.00	---	---
		JULY			AUGUST			SEPTEMBER	
1	9.1	2430	688	.00	---	---	.00	---	---
2	.14	78	.59	7.3	---	640	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	.00	---	---	.00	---	---
5	.00	---	---	.00	---	---	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	.04	---	1.0	.00	---	---
23	.00	---	---	.17	---	29	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	.00	---	---	.00	---	---
31	.00	---	---	.00	---	---	---	---	---
TOTAL	9.24	---	---	7.51	---	---	.00	---	---

07126480 BENT CANYON CREEK NEAR MOUTH NEAR TIMPAS,CO--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	.00	---	---	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	.00	---	---	.00	---	---
5	.00	---	---	.00	---	---	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	.00	---	---	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	.00	---	---	.00	---	---
31	.00	---	---	---	---	---	.00	---	---
TOTAL	.00	---	---	.00	---	---	.00	---	---

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	.00	---	---	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	.00	---	---	.00	---	---
5	.00	---	---	.00	---	---	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	.00	---	---	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	---	---	---	.00	---	---
30	.00	---	---	---	---	---	.00	---	---
31	.00	---	---	---	---	---	.00	---	---
TOTAL	.00	---	---	.00	---	---	.00	---	---

07126480 BENT CANYON CREEK NEAR MOUTH NEAR TIMPAS,CO--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	.00	---	---	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	.00	---	---	.00	---	---
5	.00	---	---	.00	---	---	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	.21	349	5.4	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	.00	---	---	.00	---	---
31	---	---	---	.00	---	---	---	---	---
TOTAL	.00	---	---	.21	---	---	.00	---	---
		JULY			AUGUST			SEPTEMBER	
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	.00	---	---	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	.00	---	---	.00	---	---
5	.00	---	---	.00	---	---	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	.00	---	---	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	.00	---	---	.00	---	---
31	.00	---	---	.00	---	---	---	---	---
TOTAL	.00	---	---	.00	---	---	.00	---	---

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO

LOCATION.--Lat 37°37'10', long 103°35'32" in NE¼SE¼ sec.10, T.28 S., R.55 W., Las Animas County, Hydrologic Unit 11020010, at Rock Crossing, 2.1 mi upstream from Minnie Canyon, 2.4 mi downstream from Beaty Canyon, and 17 mi southeast of Timpas.

DRAINAGE AREA.--2,635 Mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,350 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 30 to Jan. 4, Jan. 10-11, and Jan. 15 to Feb. 1. Records good, except those for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 30,000 acres. Peak flows are regulated to some extent by Trinidad Dam, 92 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,280 ft^3/s (revised), Aug. 21, 1984, gage height 12.60 ft, from rating curve extended above 3,290 ft^3/s; minimum daily, 6.6 ft^3/s, May 28, 31, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,350 ft^3/s at 1630 May 7, gage height, 11.90 ft; minimum daily, 20 ft^3/s, Jan. 17, 18, and Sept. 23.

REVISIONS.--The maximum discharges for some water years have been revised as shown in the following table. They supersede figures published in the reports for 1984, 1985, and 1986.

Water year	Date	Discharge (ft^3/s)	Gage height (ft)
1984	Aug. 21, 1984	4,280	12.60
1985	May 23, 1985	2,200	10.74
1986	June 2, 1986	3,260	11.77

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	44	45	38	64	57	81	223	110	92	21	68
2	40	45	45	38	68	49	112	182	98	123	26	60
3	38	49	45	39	73	46	226	159	89	161	35	47
4	43	64	45	40	65	45	173	753	70	74	469	41
5	47	79	45	40	63	46	201	1180	65	49	131	33
6	49	115	45	42	57	66	148	1590	65	42	65	34
7	44	93	44	39	52	101	114	2670	54	35	47	43
8	42	85	44	41	47	160	94	1920	47	28	40	51
9	42	68	40	39	44	197	92	1250	54	22	66	52
10	42	55	40	35	41	138	120	897	50	22	193	44
11	48	51	44	34	41	108	167	672	77	25	83	37
12	46	45	45	38	41	85	221	583	58	26	109	44
13	60	50	45	40	41	96	265	469	57	29	299	52
14	55	42	45	40	46	85	208	417	71	27	417	38
15	51	46	45	35	66	80	185	399	58	32	232	31
16	47	47	45	25	60	73	238	366	82	31	116	29
17	44	45	44	20	63	73	314	306	60	32	87	32
18	43	43	44	20	60	83	431	249	49	42	70	53
19	41	42	42	23	59	89	559	186	35	36	59	66
20	48	43	40	22	57	118	719	173	37	44	50	44
21	202	42	45	23	56	190	606	247	106	41	44	38
22	228	41	45	25	50	121	370	791	39	30	39	26
23	105	41	44	25	45	105	310	532	31	24	32	20
24	74	42	41	30	45	93	298	417	35	25	77	21
25	68	45	40	35	46	113	317	411	34	21	70	23
26	65	45	38	40	45	110	389	299	72	24	62	25
27	52	45	39	45	46	101	389	203	60	25	50	31
28	48	45	40	50	52	124	318	163	47	23	529	35
29	45	44	41	55	---	98	287	149	57	24	212	38
30	44	44	40	68	---	66	269	145	59	21	126	40
31	41	---	39	70	---	76	---	132	---	21	90	---
TOTAL	1877	1585	1329	1154	1493	2992	8221	18133	1826	1251	3946	1196
MEAN	60.5	52.8	42.9	37.2	53.3	96.5	274	585	60.9	40.4	127	39.9
MAX	228	115	45	70	73	197	719	2670	110	161	529	68
MIN	35	41	38	20	41	45	81	132	31	21	21	20
AC-FT	3720	3140	2640	2290	2960	5930	16310	35970	3620	2480	7830	2370

CAL YR 1986	TOTAL 24436.8	MEAN 67.0	MAX 1420	MIN 6.6	AC-FT 48470
WTR YR 1987	TOTAL 45003	MEAN 123	MAX 2670	MIN 20	AC-FT 89260

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORDS.--October 1982 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1983 to current year.
WATER TEMPERATURE: July 1983 to current year.
SUSPENDED SEDIMENT: August 1983 to current year.

INSTRUMENTATION.--Water-quality monitor since July 1983. Automatic pumping sediment sampler since August 1983.

REMARKS.--Daily data that are not published are either missing or of poor quality. Maximum and minimum daily specific conductance are available from the district office.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 4,190 microsiemens Aug. 16, 1986; minimum, 384 microsiemens June 24, 1984.
WATER TEMPERATURE: Maximum, 34.5°C Aug. 13, 14, 16, 1983; minimum, 0.0°C on many days during the winter in most years.
SEDIMENT CONCENTRATIONS: Maximum daily, 54,900 mg/l Aug. 16, 1986; minimum daily, 10 mg/l Oct. 25, 1983.
SEDIMENT LOADS: Maximum daily, 152,000 tons May 23, 1985; minimum daily, 0.53 tons (estimated) May 28, 31, 1986.

EXTREMES FOR WATER YEAR 1986.--
SPECIFIC CONDUCTANCE: Maximum, 4,190 microsiemens June 25; minimum, 440 microsiemens, Aug. 3.
WATER TEMPERATURE; Maximum, 31.0°C, July 14; minimum, 0.0°C, many days during the winter
SEDIMENT CONCENTRATIONS: Maximum daily, 54,900 mg/l, Aug. 16; minimum daily, 10 mg/l (estimated), Mar. 13.
SEDIMENT LOADS: Maximum daily, 107,000 tons, June 3; minimum daily, 0.53 (estimated), tons May. 28, 31.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 3,630 microsiemens, Jan. 18; minimum, 440 microsiemens, Apr. 20.
WATER TEMPERATURE: Maximum, 32.5°C, July 31, Aug. 2; minimum, 0.0°C, many days during the winter months.
SEDIMENT CONCENTRATION: Minimum daily, 29,700 mg/l, Aug. 14; minimum daily, 21 mg/l, July 28.
SEDIMENT LOAD: Maximum daily, 95,000 tons, May 7; minimum daily, 1.3 tons, July 28.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT												
02...	1230	41	3180	8.4	16.0	8.6	1500	290	200	220	2	6.1
NOV												
24...	1305	41	3220	8.4	5.5	11.4	1600	290	210	230	3	4.8
JAN												
15...	0930	34	3290	8.4	0.0	--	1500	290	200	240	3	4.1
MAR												
25...	1400	131	1570	8.5	10.0	9.9	670	140	77	100	2	3.1
MAY												
07...	1430	2800	505	8.2	13.0	8.6	190	47	18	25	0.8	2.6
07...	2000	2950	520	8.2	10.0	--	210	51	20	27	0.8	2.5
AUG												
13...	2000	1160	2230	8.0	24.0	5.6	930	190	110	150	2	7.5

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER DAY)	SOLIDS, DISSOLVED (TONS PER AC-FT)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
OCT											
02...	144	1700	25	0.40	8.8	2680	2540	297	3.64	48	<0.10
NOV											
24...	192	1900	36	0.40	6.8	2910	2790	322	3.96	--	<0.10
JAN											
15...	--	1800	38	0.50	7.8	3000	--	275	4.08	20	0.28
MAR											
25...	185	680	17	0.30	13	1260	1140	446	1.71	332	0.33
MAY											
07...	105	170	5.2	0.30	11	364	342	2750	0.50	8880	0.51
07...	110	190	4.3	0.30	9.6	350	371	2790	0.48	13000	0.53
AUG											
13...	167	1200	22	0.50	8.9	1880	1790	5890	2.56	2160	<0.10

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	PHOSPHOROUS DISSOLVED (MG/L AS P)	CYANIDE TOTAL (MG/L AS CN)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT											
02...	0.05	<0.01	<1	<10	4	820	30	<5	40	20	270
NOV											
24...	0.01	--	--	--	--	--	230	--	--	40	--
JAN											
15...	0.01	<0.01	<1	10	7	390	30	<5	50	50	20
MAR											
25...	0.02	<0.01	<1	<10	16	7200	70	8	210	6	40
MAY											
07...	0.05	<0.01	<1	<10	270	200000	120	<5	4700	40	1100
07...	0.05	<0.01	<1	<10	380	280000	15	<5	6900	32	1900
AUG											
13...	0.02	<0.01	<1	20	200	100000	20	80	2800	10	580

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	URANIUM NATURAL DISSOLVED (UG/L AS U)
MAR								
25...	1400	9.8	0.6	4.9	<0.4	7.5	<0.4	6.1
MAY								
07...	1430	4.5	<0.4	3.6	0.5	4.8	0.5	2.6

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
02...	1015	57	253	39	--
09...	1130	47	198	25	--
NOV					
05...	1340	53	151	22	--
DEC					
11...	1330	21	257	15	--
18...	1130	32	79	6.8	--
19...	1115	31	38	3.2	--
JAN					
23...	1000	31	35	2.9	--
FEB					
20...	1145	31	20	1.7	--
MAR					
14...	1045	24	4	0.26	--
APR					
17...	1200	13	120	4.2	--
30...	1030	13	61	2.1	--
MAY					
02...	1615	216	8460	4930	98
02...	1830	166	5270	2360	98
23...	1005	15	100	4.1	86
JUN					
05...	1200	169	6820	3110	100
10...	1030	351	26800	25400	100
17...	1050	44	392	47	97
JUL					
01...	1330	17	59	2.7	92
02...	1430	1050	28700	81400	90
02...	1710	533	18800	27100	96
09...	1520	22	69	4.1	65
13...	1330	16	65	2.8	95
15...	1140	40	94	10	98
21...	1930	767	17700	36700	98
30...	1530	31	99	8.3	--

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
AUG					
05...	1745	127	401	138	98
10...	1210	125	312	105	98
12...	1045	47	187	24	83
21...	1805	40	240	26	95
21...	2230	134	896	324	91
21...	2245	429	4950	5730	98
21...	2315	565	7540	11500	98
22...	0035	589	8830	14000	99
22...	0200	629	7890	13400	98
22...	0300	669	8340	15100	98
22...	2010	149	16800	6760	100
22...	2200	589	16800	26700	99
22...	2250	617	18000	30000	99
22...	2345	585	20600	32500	99
23...	0105	1040	22100	62100	99
23...	0345	1040	23800	66800	98
23...	1715	1180	19200	61200	89
23...	2300	701	11700	22100	98
24...	0100	613	18400	30500	96
26...	1525	94	2230	566	99
29...	1045	97	328	86	97
SEP					
03...	1330	186	2360	1190	98
03...	1540	176	3020	1440	99
03...	1700	164	3220	1430	100
09...	1115	65	274	48	98
17...	1030	36	100	9.7	99
23...	1140	26	79	5.5	97

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
02...	1230	41	74	8.2	96
30...	1100	46	214	27	96
NOV					
06...	1225	112	852	258	--
14...	1135	40	306	33	--
24...	1305	41	113	13	--
DEC					
19...	1230	44	115	14	--
JAN					
15...	0930	34	65	6.0	--
15...	1315	94	129	33	--
FEB					
18...	1000	61	46	7.6	--
MAR					
13...	1250	108	413	120	--
25...	1155	132	359	128	--
APR					
02...	1305	127	371	127	--
17...	1045	298	1850	1490	--
17...	1325	294	1520	1210	--
22...	1405	337	2540	2310	--
MAY					
07...	1400	2760	14900	111000	88
07...	1930	3130	16400	139000	93
08...	1135	2180	18300	108000	64
20...	1500	252	455	337	--
JUN					
01...	1315	107	194	56	--
24...	1145	34	97	8.9	--
JUL					
08...	1515	34	77	7.1	--
14...	1415	26	38	2.7	--
22...	1035	30	37	3.0	--
AUG					
05...	1715	86	1960	455	--
05...	1725	90	1970	479	--
05...	1930	83	1700	381	99
08...	0900	41	432	48	98
11...	0910	89	1680	404	99
11...	1030	89	1960	471	98
13...	1935	1080	8780	25600	91
13...	2100	1040	8100	22700	94
14...	1100	336	31800	28800	100
14...	1130	348	32400	30400	100
20...	1015	52	268	38	97
26...	1500	60	116	19	--
SEP					
02...	1045	63	467	79	98
06...	1150	33	143	13	--
09...	1455	45	54	6.6	--
16...	0950	30	55	4.5	--
22...	1130	27	26	1.9	--

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2630	3240	3450	3470	3400	3330	3270	3750	3360	2570	1390	1780
2	2640	3260	3550	3470	3430	3320	3310	1100	2620	1030	1300	1760
3	2820	3290	3510	3480	3410	3290	3320	881	831	653	599	1250
4	2780	3290	3400	3520	3370	3280	3260	1640	937	808	711	803
5	2710	3200	3350	3550	3340	3260	3230	2390	1240	862	832	815
6	2820	2930	3250	3520	3330	3270	3210	2740	1660	990	1650	1690
7	2700	3020	3240	3440	3340	3270	3230	2910	1180	1020	2150	1760
8	2750	3150	3330	3480	3370	3270	3200	3120	1140	1130	2110	1790
9	2600	3220	3390	3530	3290	3270	3210	3360	1750	1490	1290	2090
10	2560	3260	3450	3530	3350	3270	3210	3510	1290	2170	1220	2440
11	3060	3270	3520	3540	3400	3250	3200	3470	1050	2560	1740	2600
12	2210	3240	---	3570	3520	3230	3170	3330	1230	2560	1940	2740
13	1960	3240	---	3570	3440	3240	3200	3090	1420	2380	2160	2880
14	1630	3230	---	3660	3280	3230	3190	1870	1590	2290	2340	2780
15	2850	3210	---	3610	3280	3250	3280	1520	1720	---	2090	2630
16	1990	3220	---	3530	3300	3260	3360	2010	1760	---	1780	2640
17	1720	3240	---	3550	3350	3230	3490	2530	1700	2440	1530	2670
18	2020	3250	---	3420	3370	3190	3640	2900	1840	2560	1290	2700
19	2260	3370	3730	3400	3470	3220	3580	3120	1960	2640	1160	2740
20	2630	3230	3790	3360	3430	3210	3580	3460	2090	---	1450	2800
21	2580	3230	3840	3340	3200	3220	3670	2970	2190	---	1800	2810
22	2690	3230	3630	3340	3070	3200	3690	3200	2230	---	1810	2730
23	2770	3330	3440	3330	3040	3200	3670	3430	2280	1680	870	2550
24	2830	3430	3270	3320	3110	3240	3660	3500	2340	---	1040	2650
25	2880	3440	3270	3310	3210	3250	3650	3410	2700	1730	1010	2840
26	2920	3420	3310	3330	3380	3240	3620	3450	2440	1890	1240	2950
27	2960	3400	3470	3330	3420	3280	3550	3540	2470	2200	1460	3040
28	3060	3330	3460	3350	3370	3280	3560	3560	1840	2130	1820	3080
29	3180	3340	3330	3350	---	3280	3580	3600	1150	2260	2070	3160
30	3250	3360	3400	3400	---	3290	3660	3640	2070	2000	2050	2910
31	3270	---	3420	3390	---	3300	---	3610	---	1380	1940	---
MEAN	2636	3262	---	3451	3331	3255	3415	2923	1803	---	1543	2403
MAX	3270	3440	---	3660	3520	3330	3690	3750	3360	---	2340	3160
MIN	1630	2930	---	3310	3040	3190	3170	881	831	---	599	803

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.5	8.0	13.0	9.0	.0	.0	2.0	.0	9.0	3.5	14.0	4.5
2	15.0	9.5	11.5	7.5	.0	.0	1.0	.0	10.0	5.0	14.0	5.5
3	17.5	10.0	12.0	7.5	.0	.0	1.5	.0	9.0	4.5	15.0	8.0
4	15.0	10.0	12.5	7.0	.0	.0	.5	.0	9.0	3.5	14.5	6.0
5	15.5	8.0	10.5	8.5	.0	.0	.5	.0	6.0	3.5	15.0	7.0
6	17.0	10.0	11.0	7.5	.0	.0	.0	.0	4.0	2.0	15.5	6.5
7	17.5	12.5	10.5	5.5	.5	.0	.0	.0	2.0	.5	15.0	7.0
8	14.5	11.5	11.0	6.5	1.0	.0	.0	.0	.5	.5	13.0	7.0
9	11.5	9.5	9.0	5.5	.0	.0	.0	.0	.5	.5	14.0	8.0
10	13.5	9.0	5.5	2.5	.0	.0	1.0	.0	.5	.5	11.0	7.0
11	16.5	11.0	7.0	2.5	.0	.0	4.0	.0	.5	.5	14.5	6.5
12	15.5	12.0	5.0	3.5	---	---	4.5	.0	.5	.5	14.0	8.0
13	12.5	10.0	8.0	3.5	---	---	4.5	.0	.5	.5	11.0	6.5
14	13.0	9.5	5.0	2.5	---	---	3.5	.0	2.5	.5	13.0	6.0
15	13.5	9.0	5.5	1.0	---	---	5.0	.0	5.5	.5	14.5	7.0
16	13.0	8.0	6.5	1.5	---	---	5.0	1.0	8.5	2.5	13.5	8.5
17	14.0	11.0	4.5	3.0	---	---	5.5	1.0	10.5	4.0	12.5	7.0
18	13.0	10.5	6.0	1.5	---	---	5.5	1.0	11.0	6.5	8.5	5.0
19	15.0	9.5	4.5	1.0	.0	.0	6.5	1.0	11.5	6.5	11.5	3.0
20	15.5	9.5	3.5	.5	.0	.0	6.5	1.5	9.0	4.0	13.0	5.0
21	16.5	11.5	3.5	.5	.0	.0	6.5	2.0	9.0	1.5	16.0	5.0
22	16.0	11.5	3.5	.5	.0	.0	3.5	.0	10.5	2.0	17.5	7.5
23	16.0	10.5	2.5	.5	.0	.0	6.0	.0	12.0	4.5	17.5	8.5
24	16.0	10.5	3.5	.0	.5	.0	5.5	1.5	13.5	5.5	18.0	9.5
25	16.5	10.5	6.5	1.0	1.0	.0	5.5	1.0	15.0	6.5	15.0	9.5
26	17.0	12.0	4.5	2.5	2.0	.0	4.0	.0	15.5	7.5	17.5	8.0
27	16.5	11.0	5.5	2.5	1.0	.0	5.5	.0	12.0	8.0	20.0	9.0
28	16.5	11.0	5.0	2.0	.5	.0	7.0	.5	13.0	4.5	21.5	11.5
29	13.5	11.0	5.5	2.5	.5	.0	7.0	1.0	---	---	21.5	12.0
30	14.5	9.0	3.0	.0	3.0	.0	9.0	3.0	---	---	21.5	12.5
31	12.5	9.5	---	---	3.5	.0	9.0	4.5	---	---	20.5	13.0
MONTH	17.5	8.0	13.0	.0	---	---	9.0	.0	15.5	.5	21.5	3.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	16.0	11.0	24.5	14.0	17.0	15.5	30.0	21.0	28.5	20.0	24.5	20.0
2	19.0	9.5	17.0	4.0	18.5	14.0	25.0	17.0	27.5	17.5	23.0	19.0
3	12.5	5.0	18.5	10.5	18.5	13.0	27.5	19.5	22.5	15.0	23.0	18.0
4	15.0	3.5	22.5	14.5	21.0	16.5	29.0	22.0	26.5	18.0	21.5	17.5
5	17.5	7.0	22.5	13.5	24.0	17.5	27.0	21.5	27.0	20.0	22.5	15.0
6	16.0	9.5	22.5	14.0	25.0	20.0	28.5	18.5	29.0	20.5	19.5	15.0
7	19.0	11.0	21.0	13.5	25.0	19.5	29.0	22.5	27.5	21.5	15.5	14.0
8	15.0	11.5	17.5	12.0	24.5	19.0	28.5	22.0	28.5	22.0	22.0	13.5
9	18.5	10.0	17.5	9.5	22.5	18.0	27.5	22.5	28.5	21.5	22.0	16.5
10	20.5	11.0	23.0	10.0	18.0	16.0	30.0	21.0	28.0	22.5	22.5	17.5
11	19.5	11.5	23.5	13.0	22.0	15.0	30.5	21.5	29.0	21.0	23.0	16.0
12	20.0	12.5	24.0	13.5	24.5	17.0	30.0	22.5	29.0	21.0	23.5	16.5
13	17.0	10.0	23.5	14.0	24.0	19.0	29.0	22.5	29.5	22.0	23.5	17.0
14	17.0	7.5	24.5	13.0	26.0	18.0	31.0	21.5	26.5	22.5	22.5	17.5
15	19.0	8.0	22.0	15.5	28.0	19.5	29.5	21.5	29.0	20.0	23.5	17.0
16	18.5	10.0	17.5	11.0	28.0	20.5	29.0	20.5	22.0	17.0	22.5	17.0
17	17.5	10.0	16.0	9.5	28.0	20.5	30.0	21.0	26.0	19.5	23.0	15.5
18	16.5	8.0	22.0	9.5	27.5	20.5	30.0	22.5	27.5	21.0	21.5	15.5
19	20.5	9.5	25.5	13.5	28.5	21.0	29.5	22.0	28.0	21.5	22.0	15.0
20	19.5	10.0	25.5	16.5	28.5	20.5	23.5	15.5	27.0	22.0	22.0	15.5
21	23.0	12.0	24.0	17.0	29.5	20.0	20.5	18.5	28.5	20.0	22.0	17.0
22	22.5	14.0	21.5	16.0	25.5	20.0	23.0	17.5	25.0	22.0	21.0	17.0
23	22.5	14.0	20.5	14.5	27.5	20.5	27.0	19.5	22.5	19.0	22.0	17.0
24	23.0	13.5	20.5	13.5	25.5	19.5	27.0	21.0	22.5	19.5	19.5	13.5
25	20.5	12.5	21.5	14.5	25.5	21.0	27.5	21.5	25.0	19.5	18.5	11.0
26	19.0	12.0	21.0	15.0	25.0	19.5	28.0	21.0	---	20.5	19.0	12.5
27	20.5	9.5	18.5	12.5	29.0	20.0	28.0	21.0	25.5	19.0	19.5	12.0
28	23.0	10.5	18.0	13.5	29.5	22.0	28.5	20.5	25.0	19.5	17.0	13.5
29	24.5	13.0	21.5	14.0	28.0	22.0	29.5	20.5	25.5	19.5	16.5	12.5
30	24.0	13.5	22.5	14.5	29.0	21.5	29.5	21.5	26.0	20.5	18.5	11.0
31	---	---	20.0	15.0	---	---	29.0	21.5	26.5	20.5	---	---
MONTH	24.5	3.5	25.5	4.0	29.5	13.0	31.0	15.5	---	15.0	24.5	11.0

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3220	2930	3060	3430	2700	2990	1830	737	1950	2710	---	---
2	3190	2950	3090	3430	2910	3000	2010	819	2090	2610	---	---
3	3130	3010	3140	3400	3030	3000	1880	894	2030	2060	---	---
4	3090	2950	3120	3380	2640	2950	1240	728	2150	1090	1520	---
5	3020	2920	3110	3370	2680	3000	1200	834	2360	1370	500	---
6	3070	3140	3130	3330	2780	2860	1220	721	2310	1880	566	2590
7	3090	3270	3160	3290	3290	2850	1230	545	2380	1850	591	2650
8	3170	3090	3320	3280	3300	2450	1320	590	2400	2010	721	2710
9	3120	2630	3400	3290	3140	1580	1510	548	2430	2290	1140	2780
10	3070	2900	3200	3190	2890	1340	1660	---	2340	2390	1900	2970
11	2830	2940	3270	3120	2800	1130	1710	---	2260	2540	1840	2990
12	2890	2650	3290	3120	2790	1220	1330	---	2300	2550	1630	3010
13	2920	2670	3250	3110	2820	1310	1060	---	2390	2440	1210	2440
14	2990	2690	3300	3210	2830	1560	919	---	2320	2620	2200	2720
15	3040	2870	3370	3270	2760	1780	1010	---	2290	2780	---	3270
16	2550	3020	3320	3400	2820	1700	1170	---	2280	2820	---	3130
17	2900	3090	3330	3490	2810	1740	1070	---	1790	---	---	3240
18	2860	3150	3370	3530	2790	1810	814	---	2480	---	---	3220
19	3150	3120	3470	3470	2440	1810	628	---	2420	---	---	2810
20	2990	3170	3400	3500	2490	1780	518	1290	2320	2530	2480	3110
21	2930	3100	3270	3540	2540	1880	479	1340	2540	2500	2550	3090
22	2380	3140	3270	3520	2630	1510	517	1160	2610	2590	2600	2110
23	1870	3130	3260	3520	2640	1110	631	706	2190	---	---	2460
24	1740	3180	3280	3490	2750	1280	756	1140	1360	---	---	2260
25	1640	3240	3290	3440	2790	1430	668	1160	1560	---	---	2500
26	2100	3270	3320	3460	2810	1690	690	1270	2130	---	3000	2990
27	2570	3280	3360	3300	2830	1830	639	1350	2890	---	3020	2640
28	2830	3270	3420	3150	2920	1810	653	1410	2940	---	---	3040
29	2990	3230	3430	2600	---	1840	696	1580	2870	---	2550	3100
30	2990	3140	3390	2620	---	1860	783	1750	2380	---	2780	3120
31	2900	---	3400	2310	---	1770	---	1790	---	---	---	---
MEAN	2814	3038	3284	3276	2808	1931	1061	---	2292	---	---	---
MAX	3220	3280	3470	3540	3300	3000	2010	---	2940	---	---	---
MIN	1640	2630	3060	2310	2440	1110	479	---	1360	---	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.0	12.0	10.0	6.5	1.5	.5	.0	.0	6.5	2.0	9.0	1.5
2	18.5	13.0	7.5	1.5	2.0	.5	.0	.0	6.5	3.0	9.5	3.5
3	17.5	11.0	9.0	6.0	1.0	.5	1.0	.0	5.5	3.5	11.5	4.0
4	19.0	13.0	8.0	2.5	2.0	.5	2.0	.0	4.0	3.0	13.0	5.5
5	18.0	13.0	9.5	4.5	3.5	.5	4.5	.5	6.0	2.0	13.5	6.5
6	19.0	12.5	9.5	6.0	2.0	1.0	3.5	.0	6.5	1.5	14.5	7.0
7	19.5	14.0	8.0	5.0	2.5	.5	3.5	1.0	7.5	1.5	14.0	8.0
8	19.0	14.0	7.0	3.5	1.0	.0	2.5	1.0	7.0	2.5	10.0	7.0
9	16.5	14.0	6.0	2.0	.0	.0	3.0	.0	7.5	2.5	7.0	5.5
10	16.5	11.0	3.5	.5	.0	.0	2.0	.0	7.5	3.0	7.5	4.5
11	15.5	8.0	4.5	.0	.0	.0	3.0	.0	9.5	3.5	9.0	4.0
12	8.0	6.0	3.0	.0	.0	.0	5.0	.0	8.5	5.0	12.0	5.5
13	11.5	.5	3.0	.0	.0	.0	5.0	.5	10.5	5.0	12.0	6.5
14	13.5	3.0	5.5	.0	.0	.0	2.5	.0	7.5	3.5	13.0	7.5
15	14.0	4.0	7.0	2.0	.0	.0	.0	.0	7.0	3.0	12.0	7.0
16	14.5	9.0	7.5	3.5	1.0	.0	.0	.0	6.0	4.0	13.0	8.0
17	15.5	4.5	8.0	3.0	.5	.0	.0	.0	7.5	3.5	9.0	4.5
18	15.5	1.0	7.0	4.0	1.5	.0	.0	.0	6.0	3.5	12.0	4.0
19	15.5	12.5	9.5	5.0	2.0	.0	.0	.0	4.5	2.5	11.5	7.0
20	13.5	11.5	9.0	4.5	1.5	.0	.0	.0	4.0	1.5	10.5	6.5
21	14.5	10.5	9.0	4.5	2.5	.0	.0	.0	6.0	.0	11.5	6.0
22	12.5	9.5	6.5	5.5	2.0	.0	.0	.0	7.0	.5	9.5	5.0
23	13.5	9.5	7.5	4.5	3.0	.0	.0	.0	7.0	1.5	7.5	1.0
24	14.0	10.0	6.0	2.5	1.5	.0	.0	.0	7.0	2.0	8.5	4.0
25	13.5	9.0	6.0	2.5	1.0	.0	.5	.0	9.0	2.5	9.5	4.5
26	13.5	9.0	6.0	3.0	2.0	.0	.5	.0	7.5	5.5	11.5	4.5
27	13.5	8.5	6.0	1.5	.5	.0	1.0	.0	7.0	3.5	7.5	2.5
28	14.0	9.0	6.5	2.0	1.0	.0	3.5	.0	7.5	1.5	4.0	.0
29	14.0	9.5	6.0	2.5	1.0	.0	2.0	.0	---	---	6.5	.0
30	14.5	9.5	4.0	.5	.5	.0	3.5	.0	---	---	8.5	.0
31	13.0	10.5	---	---	.5	.0	4.5	2.0	---	---	11.5	3.5
MONTH	19.5	.5	10.0	.0	3.5	.0	5.0	.0	10.5	.0	14.5	.0

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.0	6.0	20.5	15.5	25.0	18.0	28.5	19.5	32.0	24.0	25.5	18.5
2	12.0	6.5	19.5	16.0	26.5	19.0	28.0	21.5	32.5	24.0	25.0	19.0
3	12.5	7.0	15.5	11.0	21.5	18.5	28.0	22.0	31.0	24.5	26.0	19.0
4	11.5	8.0	10.5	8.0	26.5	16.5	27.0	19.5	25.0	17.5	24.0	20.0
5	11.0	8.0	9.0	7.0	28.0	19.0	29.0	20.0	25.0	16.5	25.5	19.0
6	11.5	7.0	11.0	8.5	28.0	19.5	29.5	21.5	28.5	20.0	25.5	19.0
7	12.0	7.5	11.5	8.0	29.5	20.0	28.5	21.0	27.5	22.0	25.5	19.0
8	15.0	7.5	15.0	9.0	27.5	21.5	30.0	21.5	26.5	22.0	25.5	19.0
9	14.5	9.0	16.0	11.5	25.0	21.5	28.5	22.5	26.0	22.5	24.5	18.0
10	16.0	10.0	---	---	29.0	20.0	29.0	20.0	28.0	22.5	24.0	17.5
11	15.5	11.0	---	---	29.5	21.0	29.5	21.5	28.5	22.5	24.5	17.5
12	12.5	9.0	---	---	30.0	22.5	24.5	20.5	25.5	23.0	25.5	18.0
13	10.0	7.5	---	---	29.5	22.0	28.0	18.5	28.0	21.5	25.0	18.5
14	12.5	6.0	---	---	29.5	21.5	29.0	20.0	24.5	20.5	23.0	18.0
15	15.0	8.0	---	---	29.5	22.0	29.5	22.0	26.0	20.5	21.5	17.0
16	16.5	10.5	---	---	30.0	22.0	29.0	20.5	27.0	20.0	23.5	16.0
17	17.5	12.5	---	---	27.0	21.5	27.0	21.0	27.0	20.0	21.0	17.0
18	17.5	13.5	---	---	29.0	20.0	28.5	19.5	26.0	20.0	23.0	15.5
19	17.0	13.0	---	---	29.5	20.5	29.5	20.5	28.5	21.0	23.5	16.5
20	13.0	10.5	---	---	29.5	22.0	29.5	21.0	27.5	21.5	22.5	17.5
21	11.5	9.5	19.5	16.5	27.0	20.0	29.0	21.5	29.0	21.5	23.5	16.5
22	13.5	8.0	19.5	9.0	29.0	19.5	30.5	20.0	---	22.6	24.0	16.0
23	15.5	9.5	17.0	8.0	28.0	21.0	31.0	23.0	---	---	24.0	16.0
24	17.0	12.0	19.0	16.0	28.5	21.5	32.0	23.5	---	---	23.5	16.0
25	18.5	13.5	20.5	15.5	28.5	20.5	29.5	22.5	---	---	22.0	16.5
26	18.5	13.5	20.0	16.0	27.5	21.0	30.0	20.5	---	---	23.5	16.0
27	17.5	14.0	21.0	15.5	30.0	22.0	30.5	21.5	22.5	18.5	22.5	16.5
28	18.5	12.5	20.5	15.5	29.5	21.5	30.0	21.0	20.0	18.0	22.0	15.5
29	19.5	14.0	22.0	15.5	23.5	19.5	31.0	22.0	22.0	17.0	22.0	15.5
30	19.5	15.0	23.0	16.0	23.5	18.5	32.0	22.0	22.5	17.5	21.0	14.5
31	---	---	24.5	17.0	---	---	32.5	23.0	24.5	17.5	---	---
MONTH	19.5	6.0	---	---	30.0	16.5	32.5	18.5	---	---	26.0	14.5

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	68	268	49	39	376	40	30	---	11
2	57	245	38	63	358	398	30	---	8.1
3	50	222	30	81	310	68	31	---	8.4
4	53	227	32	59	---	38	32	---	13
5	52	363	51	50	151	20	35	---	16
6	52	344	48	47	180	23	39	---	19
7	50	318	43	45	180	22	36	---	17
8	52	257	36	44	240	29	38	---	18
9	46	198	25	44	282	34	30	---	13
10	83	483	124	44	---	33	24	---	13
11	131	2680	1170	44	329	39	21	230	13
12	263	17200	13900	42	242	27	20	---	11
13	107	18100	5230	41	177	20	20	---	5.4
14	127	17400	6630	42	---	24	23	---	9.3
15	193	13000	6990	45	---	23	29	---	7.8
16	98	10400	2750	46	145	18	34	---	8.3
17	83	11300	2530	46	153	19	30	80	6.5
18	80	8670	1870	47	150	20	32	79	6.8
19	71	6760	1300	49	159	21	31	60	5.0
20	68	---	705	47	---	20	33	---	5.3
21	62	1310	219	42	---	18	31	---	4.6
22	59	---	111	41	---	18	31	---	4.6
23	54	493	72	40	---	22	33	---	5.3
24	52	---	57	42	---	26	33	---	4.9
25	46	---	41	41	218	25	29	---	3.9
26	45	---	35	41	168	19	28	---	3.0
27	42	---	30	41	170	19	27	---	2.9
28	40	---	27	41	186	21	28	---	3.4
29	40	237	26	41	140	15	31	---	4.6
30	40	267	29	36	172	17	33	---	7.1
31	40	326	35	---	---	---	30	---	4.9
TOTAL	2304	---	44233	1371	---	1136	932	---	264.1
YEAR	24252.8		819492.25						

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	29	---	3.9	34	49	4.5	27	33	2.4
2	31	---	4.6	34	66	6.1	26	24	1.7
3	30	---	4.9	34	42	3.9	25	21	1.1
4	32	---	4.8	33	39	3.5	25	29	2.0
5	33	---	5.3	30	51	4.1	25	18	1.2
6	34	---	6.0	26	---	3.9	25	19	1.3
7	28	---	4.2	22	---	2.7	25	13	.88
8	27	---	2.9	20	---	1.6	24	24	1.6
9	26	40	2.8	19	---	1.3	24	24	1.6
10	30	---	4.9	17	---	1.1	22	14	.83
11	35	94	8.9	17	---	1.1	22	13	.77
12	36	108	10	17	---	1.1	21	14	.79
13	39	66	6.9	20	---	1.4	21	---	.57
14	44	70	8.3	25	---	2.0	23	20	1.2
15	44	51	6.1	34	---	3.7	23	---	2.4
16	41	40	4.4	47	56	7.1	25	---	2.7
17	38	47	4.8	45	52	6.3	26	47	3.3
18	38	40	4.1	39	57	6.0	27	39	2.8
19	38	52	5.3	34	53	4.9	27	24	1.7
20	34	51	4.7	31	44	3.7	26	---	1.7
21	34	57	5.3	30	---	3.6	26	---	1.5
22	35	48	4.6	30	---	3.2	26	---	1.4
23	31	---	4.3	28	---	2.6	27	---	1.6
24	33	76	6.8	27	34	2.5	27	---	1.8
25	34	49	4.5	27	58	4.2	27	---	2.2
26	34	44	4.0	28	48	3.6	26	---	1.6
27	31	41	3.4	27	32	2.3	25	---	1.6
28	29	40	3.1	27	30	2.2	24	28	1.8
29	33	36	3.2	---	---	---	24	---	1.6
30	32	56	4.8	---	---	---	24	---	1.4
31	33	48	4.3	---	---	---	22	19	1.1
TOTAL	1046	---	156.1	802	---	94.2	767	---	50.14
YEAR	24252.8		819492.25						

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	23	24	1.5	9.8	---	1.3	21	660	148
2	23	34	2.1	362	1600	31500	753	18500	88700
3	20	39	2.4	74	---	120	1420	25400	107000
4	22	54	3.2	45	---	24	501	11200	15900
5	24	101	6.5	41	---	17	225	7240	4480
6	38	107	11	24	---	6.5	335	7790	7040
7	38	108	11	13	---	2.5	124	6780	2270
8	32	---	7.8	9.0	---	1.2	193	11700	11300
9	31	---	5.4	7.8	---	.74	417	38900	50800
10	28	---	3.8	7.0	---	.72	345	31600	31200
11	25	---	3.0	9.8	---	2.1	169	15300	7160
12	24	---	3.2	9.0	---	1.7	144	---	1940
13	21	---	4.5	13	---	4.2	105	---	425
14	20	---	3.2	9.8	---	2.6	80	---	216
15	19	---	2.6	23	---	21	66	---	125
16	16	---	3.5	16	---	7.0	58	---	86
17	13	120	4.2	12	---	2.4	48	---	52
18	13	95	3.3	8.2	---	1.1	39	---	26
19	13	116	4.1	7.8	---	2.1	27	---	11
20	13	114	4.0	39	---	48	23	---	7.5
21	14	112	4.2	41	---	29	20	---	3.5
22	26	148	11	25	---	10	47	---	61
23	29	---	12	15	101	4.1	25	---	4.7
24	23	---	5.6	9.9	---	1.6	20	---	3.2
25	15	---	3.0	9.0	---	1.2	108	---	197
26	13	---	2.3	7.4	---	.70	71	---	96
27	13	---	2.1	6.7	---	.54	39	---	37
28	10	---	1.4	6.6	---	.53	39	---	42
29	12	---	1.8	7.4	---	1.2	38	---	36
30	13	61	2.1	7.2	---	.97	23	---	6.2
31	---	---	---	6.6	---	.53	---	---	---
TOTAL	624	---	135.8	882.0	---	31816.50	5523	---	329372.7
YEAR	24252.8		819492.25						

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	22	139	47	14	63	2.4	81	407	103
2	366	11700	23500	93	2030	3830	311	3730	5500
3	110	6120	2260	401	9060	15300	212	3020	1890
4	74	254	57	61	2080	381	121	333	114
5	38	---	8.1	80	748	182	87	190	45
6	24	---	4.5	84	205	46	57	192	30
7	23	---	5.6	67	135	24	50	172	23
8	20	---	3.8	105	1270	553	49	190	25
9	21	69	3.9	48	300	39	66	257	46
10	22	---	5.3	110	776	251	59	---	34
11	16	---	3.0	65	---	105	48	---	24
12	20	---	4.2	47	218	28	49	---	24
13	16	65	2.8	45	180	22	46	182	23
14	13	---	2.1	34	130	12	49	132	17
15	37	334	37	349	10600	27900	41	104	12
16	24	62	4.0	481	54900	78000	36	91	8.8
17	20	52	2.8	157	14400	6160	35	100	9.4
18	15	35	1.4	99	3800	1020	31	89	7.4
19	9.8	75	2.0	78	1400	295	26	89	6.2
20	385	7360	11100	60	600	97	23	71	4.4
21	880	36300	101000	78	717	699	21	80	4.5
22	280	24000	19100	359	8660	9810	24	102	6.6
23	148	11900	5190	1000	25900	76300	27	78	5.7
24	105	---	1300	383	9010	10500	30	52	4.2
25	81	4600	1010	159	---	1720	27	68	5.0
26	70	---	800	99	2230	596	25	50	3.4
27	200	---	4000	87	---	258	25	58	3.9
28	120	680	220	92	---	191	24	50	3.2
29	68	190	35	97	320	84	24	45	2.9
30	31	160	13	89	296	71	29	58	4.5
31	21	112	6.4	68	220	40	---	---	---
TOTAL	3279.8	---	169728.8	4989	---	234516.4	1733	---	7990.1
YEAR	24252.8		819492.25						

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

		OCTOBER			NOVEMBER			DECEMBER	
1	35	73	6.9	44	---	24	45	126	19
2	40	77	8.3	45	---	30	45	---	15
3	38	70	7.2	49	---	40	45	---	13
4	43	79	9.2	64	---	69	45	---	12
5	47	92	12	79	---	146	45	---	13
6	49	96	13	115	860	278	45	84	10
7	44	88	10	93	440	110	44	94	11
8	42	92	10	85	---	103	44	---	11
9	42	96	11	68	---	73	40	---	11
10	42	85	9.6	55	---	55	40	---	15
11	48	72	9.3	51	---	41	44	---	17
12	46	65	8.1	45	---	30	45	129	16
13	60	---	15	50	---	46	45	120	15
14	55	---	13	42	297	34	45	172	21
15	51	---	12	46	230	28	45	---	17
16	47	---	9.5	47	180	23	45	---	19
17	44	---	8.3	45	190	23	44	---	14
18	43	---	8.1	43	155	18	44	---	11
19	41	---	7.7	42	147	17	42	110	12
20	48	---	10	43	155	18	40	88	9.5
21	202	---	2830	42	120	14	45	74	9.0
22	228	---	2970	41	203	22	45	65	7.9
23	105	---	566	41	167	18	44	60	7.1
24	74	---	110	42	112	13	41	64	7.1
25	68	---	83	45	120	15	40	60	6.5
26	65	---	70	45	100	12	38	48	4.9
27	52	---	42	45	108	13	39	---	5.3
28	48	---	32	45	122	15	40	---	5.9
29	45	---	27	44	100	12	41	---	6.1
30	44	215	26	44	---	12	40	---	6.5
31	41	---	17	---	---	---	39	---	6.3
TOTAL	1877	---	6971.2	1585	---	1352	1329	---	354.1
YEAR	45003		668517.9						

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	38	---	6.2	64	60	10	57	54	8.3
2	38	---	6.2	68	75	14	49	43	5.7
3	39	---	6.3	73	107	21	46	---	5.6
4	40	---	6.5	65	101	18	45	---	6.1
5	40	---	6.5	63	100	17	46	---	7.5
6	42	---	6.8	57	---	15	66	---	16
7	39	---	4.7	52	---	12	101	202	58
8	41	---	4.4	47	---	9.5	160	292	130
9	39	---	3.7	44	---	8.3	197	2340	1250
10	35	---	3.3	41	---	7.2	138	1840	717
11	34	---	4.1	41	60	6.6	108	---	315
12	38	---	5.1	41	32	3.5	85	609	147
13	40	---	5.4	41	36	4.0	96	404	105
14	40	---	4.3	46	27	3.4	85	315	72
15	35	65	6.1	66	35	6.2	80	316	68
16	25	---	3.7	60	30	4.9	73	315	62
17	20	---	2.2	63	33	5.6	73	261	51
18	20	---	1.6	60	43	7.0	83	225	50
19	23	---	1.9	59	47	7.5	89	268	64
20	22	---	2.1	57	---	6.9	118	334	120
21	23	---	1.9	56	---	6.8	190	879	456
22	25	---	2.0	50	---	6.1	121	1580	504
23	25	---	2.4	45	---	5.7	105	1790	512
24	30	---	3.2	45	---	6.1	93	---	181
25	35	---	3.3	46	---	6.8	113	424	126
26	40	---	3.8	45	53	6.4	110	422	125
27	45	---	4.9	46	---	5.6	101	432	118
28	50	---	6.1	52	---	8.4	124	432	145
29	55	---	10	---	---	---	98	360	95
30	68	138	25	---	---	---	66	233	42
31	70	99	19	---	---	---	76	414	85
TOTAL	1154	---	172.7	1493	---	239.5	2992	---	5647.2
		APRIL			MAY			JUNE	
1	81	---	100	223	1480	902	110	200	59
2	112	503	121	182	990	486	98	133	35
3	226	2290	1470	159	720	309	89	155	37
4	173	3320	1520	753	---	23200	70	110	21
5	201	2180	1220	1180	---	43400	65	81	14
6	148	1290	515	1590	---	53800	65	113	20
7	114	1110	342	2670	13000	95000	54	106	15
8	94	666	169	1920	16700	87300	47	---	8.9
9	92	441	110	1250	10300	34900	54	88	13
10	120	399	131	897	5770	14000	50	54	7.3
11	167	540	247	672	4850	8770	77	99	21
12	221	1290	772	583	3730	5920	58	68	11
13	265	1530	1070	469	2480	3150	57	133	20
14	208	1220	685	417	1690	1970	71	168	32
15	185	---	415	399	2890	3220	58	139	22
16	238	---	374	366	1970	1990	82	303	76
17	314	1950	1700	306	1490	1230	60	141	23
18	431	3160	3880	249	---	106	49	---	13
19	559	4820	7610	186	---	42	35	---	7.6
20	719	7460	16100	173	468	219	37	---	7.0
21	606	8610	14300	247	493	329	106	920	390
22	370	3270	3310	791	6890	42700	39	---	32
23	310	2020	1720	532	6770	13600	31	---	12
24	298	1540	1270	417	5390	5810	35	90	8.5
25	317	1620	1440	411	2310	2600	34	72	6.6
26	389	2660	2990	299	4330	3650	72	103	22
27	389	3400	3660	203	2300	1250	60	181	29
28	318	3010	2650	163	---	651	47	115	15
29	287	2260	1790	149	---	466	57	105	16
30	269	1680	1280	145	---	345	59	94	15
31	---	---	---	132	---	214	---	---	---
TOTAL	8221	---	72961	18133	---	451529	1826	---	1008.9

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	92	104	26	21	53	3.0	68	1330	244
2	123	720	329	26	35	2.5	60	560	91
3	151	5200	2350	35	53	5.5	47	236	30
4	74	2090	511	469	11500	20300	41	179	20
5	49	350	46	131	3560	1490	33	155	14
6	42	---	23	65	910	160	34	140	13
7	35	---	9.4	47	560	71	43	62	7.2
8	28	84	6.4	40	420	45	51	58	8.0
9	22	94	5.6	66	457	128	52	87	14
10	22	86	5.1	193	2850	1500	44	150	18
11	25	86	5.8	83	2400	538	37	130	13
12	26	82	5.8	109	1720	564	44	58	7.5
13	29	64	5.0	299	2850	6600	52	60	8.4
14	27	53	3.9	417	29700	34200	38	54	5.5
15	32	---	6.0	232	9130	6670	31	140	12
16	31	---	5.4	116	2100	658	29	65	5.1
17	32	---	6.9	87	4340	1020	32	67	5.8
18	42	---	10	70	1120	212	53	82	13
19	36	---	7.3	59	420	67	66	86	18
20	44	---	11	50	332	45	44	65	7.7
21	41	---	6.6	44	294	35	38	61	6.3
22	30	36	2.9	39	238	25	26	42	2.9
23	24	36	2.3	32	---	18	20	78	4.2
24	25	63	4.3	77	---	117	21	49	2.8
25	21	40	2.3	70	---	32	23	49	3.0
26	24	46	3.0	62	112	19	25	56	3.8
27	25	38	2.6	50	128	17	31	58	4.8
28	23	21	1.3	529	25400	35500	35	62	5.8
29	24	31	2.0	212	18100	11200	38	66	6.8
30	21	54	3.1	126	6490	2190	40	110	12
31	21	50	2.8	90	3430	833	---	---	---
TOTAL	1251	---	3411.8	3946	---	124265.0	1196	---	607.6
YEAR	45003		668517.9						

07128500 PURGATOIRE RIVER NEAR LAS ANIMAS, CO

LOCATION.--Lat 38°02'02", long 103°12'00", in NE¼SW¼ sec.23, T.23 S., R.52 W., Bent County, Hydrologic Unit 11020010, on right bank at downstream side of bridge on State Highway 101, 2.3 mi southeast of courthouse in Las Animas, and 4.5 mi upstream from mouth.

DRAINAGE AREA.--3,318 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to September 1889, July to October 1909 (gage heights and discharge measurements only), January 1922 to September 1931, July 1948 to current year. Monthly discharge only for some periods, published in WSP 1311. Published as Purgatoire Creek at Las Animas in 1889 and as Purgatory River near Las Animas in 1909.

REVISED RECORDS.--WSP 1241: 1927(M); WDR CO-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,871.84 ft above National Geodetic Vertical Datum of 1929. See WSP 1731 for history of changes prior to Oct. 1, 1955. Oct. 1, 1955, to July 11, 1966, at datum 3.00 ft, higher. Supplementary water-stage recorder at site 1.6 mi downstream at different datum July 12 to Nov. 17, 1966. Nov. 18, 1966 to May 4, 1982 at datum 3.1 ft, higher.

REMARKS.--Estimated daily discharges: Dec. 2-10, 13-27, 30, Jan. 1, 4, 16-21, and May 24-27. Records good except for estimated daily discharges, which are poor. Flow regulated to some extent since January 1975 by Trinidad Lake near Trinidad, upstream. Diversions for irrigation of about 36,000 acres upstream from station.

AVERAGE DISCHARGE.--37 years (water years 1923-31, 1949-76), 116 ft^3/s; 84,040 acre-ft/yr, prior to completion of Trinidad Lake; 10 years (water years 1978-87), 78.7 ft^3/s; 57,020 acre-ft/yr, subsequent to completion of Trinidad Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70,000 ft^3/s, May 20, 1955, gage height, 20.00 ft, different datum, from rating curve extended above 38,000 ft^3/s; no flow at times in 1924-25, 1927, 1949, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest flood since at least 1860 occurred Oct. 1, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,900 ft^3/s at 0900 May 8, gage height, 8.81 ft; minimum daily, 2.6 ft^3/s, July 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	55	41	35	77	46	130	243	184	58	3.5	71
2	12	59	40	33	71	56	139	198	171	49	5.0	50
3	21	58	40	41	66	53	159	237	138	65	119	45
4	37	65	40	50	70	46	250	305	131	111	88	42
5	39	74	45	53	70	42	214	1050	116	76	232	29
6	37	84	45	51	67	42	222	1220	79	52	89	27
7	44	122	40	48	62	46	197	2160	49	18	27	30
8	43	99	40	50	56	81	161	2430	78	19	12	47
9	38	98	35	49	53	147	138	1630	75	25	10	51
10	39	93	30	45	46	189	134	1110	81	15	11	70
11	54	80	28	43	40	152	152	784	63	21	79	76
12	68	77	28	42	38	128	207	645	42	10	23	74
13	68	67	30	42	33	104	267	510	43	5.0	31	46
14	52	69	34	42	35	103	309	423	34	2.6	162	37
15	61	48	35	42	47	93	267	426	27	7.0	210	39
16	51	43	34	30	61	119	236	351	28	17	146	34
17	45	44	35	25	62	155	274	314	38	31	68	34
18	43	45	33	25	61	160	310	303	39	19	39	240
19	44	45	35	26	59	150	414	284	56	9.1	25	100
20	51	42	38	27	57	153	519	271	40	6.1	17	71
21	59	39	40	27	58	132	717	286	14	4.6	17	60
22	155	40	40	28	56	206	466	290	38	6.8	30	52
23	203	40	42	32	53	173	338	1060	48	6.5	28	49
24	112	39	42	36	49	181	294	400	44	5.8	27	40
25	86	40	42	33	49	161	279	500	33	4.4	14	38
26	72	41	42	38	48	164	310	400	26	3.8	24	32
27	75	43	42	47	44	164	382	320	24	2.9	23	30
28	74	42	41	56	44	165	335	267	45	3.2	33	25
29	68	40	42	66	---	179	276	239	47	3.5	299	18
30	58	41	40	84	---	163	261	197	45	3.4	156	21
31	53	---	40	80	---	123	---	191	---	3.3	94	---
TOTAL	1880	1772	1179	1326	1532	3876	8357	19044	1876	664.0	2141.5	1578
MEAN	60.6	59.1	38.0	42.8	54.7	125	279	614	62.5	21.4	69.1	52.6
MAX	203	122	45	84	77	206	717	2430	184	111	299	240
MIN	12	39	28	25	33	42	130	191	14	2.6	3.5	18
AC-FT	3730	3510	2340	2630	3040	7690	16580	37770	3720	1320	4250	3130

CAL YR 1986 TOTAL 21344.4 MEAN 58.5 MAX 1460 MIN 2.9 AC-FT 42330
WTR YR 1987 TOTAL 45225.5 MEAN 124 MAX 2430 MIN 2.6 AC-FT 89700

07128500 PURGATOIRE RIVER NEAR LAS ANIMAS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1985 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1985 to current year.
WATER TEMPERATURE: December 1985 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--There was no specific conductance record Apr. 19-21, May 2-4, 8-20, 22-28, June 5-9, 12, 14-18,21-22, 26-27 and Aug. 4, 12-25, 29-31 and no temperature record Apr. 19-21, May 2-4, 8-20, 22-28, June 12-18, 21-22, 26-27, July 11-13 and Aug. 20-24. Records are good. Daily maximum and minium specific conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 5,730 microsiemens May 4, 1987; minimum, 420 microsiemens Sept. 2, 1986.
WATER TEMPERATURE: maximum, 34.°C July 23, 29, 1987; minimum, 0.0°C many days during winter months.

EXTREMES FOR CURRENT YEAR.
SPECIFIC CONDUCTANCE: Maximum, 5,730 microsiemens May 4; minimum, 450 microsiemens Aug. 3.
WATER TEMPERATURE: Maximum 34.5°C July 23, 29; minimum, 0.0°C many days during winter.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	OXYGEN, DISSOLVED (MG/L)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)
OCT							
21...	1300	64	2700	8.3	10.0	0.13	0.50
NOV							
25...	1300	46	3390	8.3	11.2	0.09	0.10
DEC							
16...	1315	34	3440	8.4	11.7	0.16	0.20
JAN							
28...	1250	66	3310	8.4	9.9	0.07	0.30
FEB							
19...	0900	58	3130	8.4	11.5	0.08	<0.10
APR							
01...	1500	148	2100	8.5	9.1	0.11	0.60
21...	1500	756	562	8.1	8.8	0.07	0.70
MAY							
29...	0850	245	1800	8.3	8.0	0.07	0.40
JUN							
23...	1550	38	2640	8.2	8.4	0.13	0.40
JUL							
20...	1510	5.2	4240	8.2	11.4	0.68	0.30
AUG							
11...	1100	103	1170	8.0	6.5	0.03	0.40
SEP							
08...	1550	61	2380	8.3	7.6	0.06	1.20

07128500 PURGATOIRE RIVER NEAR LAS ANIMAS, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3120	2850	3350	3640	2650	3180	2960	835	1960	2420	4430	1870
2	3360	2870	3280	3720	2860	3150	2050	---	1890	2160	4100	2160
3	3220	2880	3240	3690	2680	3180	2700	---	1880	2660	3780	2360
4	3250	2890	3210	3580	2680	3310	2320	---	1900	2700	---	2380
5	3110	2860	3250	3470	3110	3390	1890	902	---	2500	1220	2540
6	3100	2820	3280	3500	3260	3030	1400	896	---	2300	1040	2630
7	3050	2790	3310	3500	3010	3410	1350	813	---	3280	847	2550
8	3000	2760	3290	3490	2960	3300	1460	---	---	2780	899	2460
9	2900	2740	3280	3520	3070	3030	1430	---	---	2650	985	2090
10	2890	2710	3360	3540	3220	2600	1720	---	2010	2640	1130	2140
11	2800	2700	3600	3530	3130	1750	3160	---	2470	2790	1250	2210
12	2680	2460	3670	3500	3250	1160	2330	---	---	2860	---	2010
13	2600	2490	3680	3540	3210	1100	1640	---	2070	3270	---	2130
14	2630	2560	3730	3520	3480	1090	1360	---	---	4310	---	2270
15	2730	3100	3450	3420	3100	1130	1110	---	---	4270	---	2680
16	2880	2990	3200	3910	2950	1220	1060	---	---	4010	---	2690
17	2900	2990	3350	3610	2900	1800	997	---	---	3010	---	2680
18	2980	3010	3400	3980	2990	1870	1080	---	---	3240	---	2000
19	2950	3150	3540	3920	3040	1800	---	---	1850	4450	---	1280
20	2790	3270	3530	4300	3050	1350	---	---	1920	4220	---	919
21	2630	3340	3490	4210	3070	1910	---	1370	---	3770	---	950
22	2740	3380	3530	3900	2890	1870	595	---	---	3650	---	1730
23	2610	3380	3610	3610	2830	1830	637	---	2510	4140	---	2710
24	2670	3360	3530	3870	2880	1620	728	---	2350	4150	---	2680
25	2490	3380	3470	3730	2970	1390	845	---	2290	4150	---	2770
26	2510	3390	3490	4590	2990	1510	894	---	---	4330	3710	2810
27	2570	3410	3520	4160	3060	1550	821	---	---	4450	3210	2850
28	2620	3430	3540	3240	3170	1730	665	---	2660	4620	3190	2920
29	2680	3440	3570	3110	---	1820	609	1700	2440	4700	---	3040
30	2740	3380	3560	3240	---	2010	803	1750	2460	4600	---	3070
31	2790	---	3580	3220	---	3710	---	1870	---	4540	---	---
MEAN	2838	3026	3448	3670	3024	2155	---	---	---	3536	---	2319
MAX	3360	3440	3730	4590	3480	3710	---	---	---	4700	---	3070
MIN	2490	2460	3200	3110	2650	1090	---	---	---	2160	---	919

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	20.5	11.5	11.5	8.5	4.5	.0	1.0	.0	7.0	1.0	9.5	.0
2	22.0	13.0	8.5	7.5	4.5	.0	1.0	.0	7.0	4.0	10.0	1.0
3	17.0	13.5	10.0	7.5	2.5	.0	3.5	.0	7.0	4.0	10.5	1.5
4	19.5	12.0	9.5	8.0	3.5	.0	4.0	.0	5.5	2.0	11.5	5.0
5	18.5	12.5	10.5	6.0	3.5	.5	5.0	.0	6.5	.5	14.5	5.5
6	19.5	11.5	11.0	6.0	2.0	1.0	5.5	1.0	6.5	.0	15.5	5.5
7	20.0	12.5	9.0	6.5	3.0	1.5	4.5	1.5	6.5	.0	16.0	5.5
8	20.5	13.0	8.0	4.5	2.5	.5	3.0	1.0	6.5	1.0	10.0	5.0
9	15.5	12.5	6.5	3.0	1.5	.0	3.0	.0	6.5	.0	6.5	4.5
10	16.5	11.5	4.0	1.0	1.0	.0	3.0	.0	7.0	.5	6.5	1.0
11	13.0	7.0	4.0	.0	2.5	.0	4.5	.0	9.5	.5	6.5	1.0
12	7.0	5.5	2.0	.5	4.0	.0	5.5	.5	9.0	4.5	12.0	5.0
13	10.5	4.5	3.0	.0	2.5	.0	6.0	.5	12.0	4.0	11.5	5.0
14	14.0	6.5	5.5	.0	3.0	.0	3.0	1.0	6.5	.5	12.0	5.5
15	14.5	8.0	8.0	2.0	3.5	.0	1.0	.0	6.5	.5	11.5	5.0
16	15.5	8.5	9.0	4.0	3.5	.0	.5	.0	5.0	2.0	10.0	5.5
17	16.5	9.0	10.0	4.0	1.5	.0	.0	.0	7.0	1.5	6.5	1.5
18	17.0	9.5	8.5	4.5	1.5	.0	.0	.0	6.5	.5	9.5	1.0
19	16.5	12.0	10.0	5.0	2.0	.0	.0	.0	5.0	.5	10.0	5.0
20	14.0	11.5	9.5	5.0	2.0	.0	.0	.0	4.5	.0	11.0	5.0
21	15.5	10.5	9.5	4.0	2.5	.0	.0	.0	6.5	.0	12.0	5.0
22	14.0	9.5	7.5	5.5	2.5	.0	.0	.0	7.0	.0	10.5	5.0
23	13.0	11.0	8.5	4.5	3.0	.0	.0	.0	7.0	.0	7.0	1.5
24	13.0	11.5	7.5	2.0	2.5	.0	2.5	.0	7.0	.0	6.5	1.0
25	13.0	11.0	7.0	2.0	3.0	.0	4.5	.0	10.0	.0	7.0	2.5
26	13.0	10.5	7.0	3.5	3.0	.0	5.0	.0	7.0	4.5	10.5	3.5
27	13.0	10.5	6.5	1.0	2.5	.0	4.5	.0	7.0	.5	8.0	3.0
28	13.0	10.5	7.5	2.0	2.5	.0	4.5	.0	7.0	.0	3.0	.0
29	13.5	11.0	7.0	2.5	3.5	.0	4.0	.0	---	---	2.5	.0
30	13.5	11.0	4.5	.0	1.5	.0	2.0	.0	---	---	6.0	.0
31	13.0	11.5	---	---	3.0	.0	6.5	1.0	---	---	9.5	4.5
MONTH	22.0	4.5	11.5	.0	4.5	.0	6.5	.0	12.0	.0	16.0	.0

07128500 PURGATOIRE RIVER NEAR LAS ANIMAS, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.5	6.5	19.5	17.0	24.5	19.0	27.0	18.5	34.0	21.0	26.0	19.5
2	11.5	6.5	---	---	25.0	19.0	29.5	21.0	34.0	21.5	26.0	18.5
3	13.0	7.5	---	---	20.5	18.5	28.5	20.5	32.5	22.0	26.5	18.0
4	11.5	8.5	---	---	24.5	16.0	28.5	21.0	27.5	22.5	24.5	19.0
5	10.0	8.0	13.5	12.0	26.5	18.0	29.0	19.5	25.0	22.0	26.5	18.0
6	11.5	7.0	14.0	11.0	25.0	18.0	29.5	21.0	29.5	23.0	26.5	18.0
7	13.0	8.5	15.5	13.5	26.5	16.0	31.0	20.0	29.0	22.5	26.0	17.0
8	15.0	8.0	---	---	26.0	19.5	30.5	20.0	28.0	21.5	---	---
9	15.0	10.0	---	---	22.0	19.5	30.0	19.5	26.5	21.0	24.5	17.5
10	15.5	10.5	---	---	27.5	17.5	31.0	18.5	29.0	19.5	23.0	17.5
11	15.0	11.5	---	---	30.0	19.5	---	---	30.5	21.0	22.5	17.5
12	13.0	9.0	---	---	---	---	---	---	24.5	19.5	22.0	18.0
13	9.0	7.0	---	---	---	---	---	---	28.5	18.5	25.5	17.0
14	11.0	5.5	---	---	---	---	29.5	16.0	27.5	19.5	23.0	17.5
15	15.0	8.5	---	---	---	---	30.5	18.5	26.5	22.0	22.5	17.0
16	18.0	11.5	---	---	---	---	30.5	20.0	26.5	20.0	24.0	15.0
17	19.0	13.5	---	---	---	---	28.5	21.5	28.0	18.5	21.5	16.5
18	19.0	15.0	---	---	---	19.0	31.0	22.5	25.0	18.5	16.5	15.0
19	---	---	---	---	27.5	17.0	33.5	22.0	29.5	18.5	20.0	16.0
20	---	---	---	---	29.5	19.5	33.0	21.5	---	---	20.0	17.0
21	13.0	---	19.5	---	---	---	30.5	19.0	---	---	21.0	15.0
22	15.0	10.5	---	---	---	---	33.5	18.0	---	---	22.0	15.5
23	17.0	11.5	---	---	29.5	21.0	34.5	20.5	---	---	23.0	15.5
24	18.5	13.0	---	---	29.5	20.0	33.0	21.0	---	---	23.5	15.5
25	20.0	14.0	---	---	29.5	20.0	30.5	19.5	27.5	---	22.0	16.0
26	20.5	15.0	---	---	---	---	32.0	18.5	26.5	21.0	24.0	15.5
27	17.5	16.5	---	---	---	---	32.0	18.5	25.5	20.0	22.0	16.0
28	20.0	14.5	---	---	29.5	21.0	32.5	19.0	27.0	15.5	22.5	15.0
29	21.5	16.0	22.0	16.5	24.0	19.5	34.5	19.5	22.0	20.5	23.0	13.5
30	20.0	16.5	23.5	17.0	23.5	18.5	34.0	20.0	22.0	19.5	22.5	13.0
31	---	---	24.5	18.5	---	---	34.0	20.5	23.0	19.0	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

07130000 JOHN MARTIN RESERVOIR AT CADDOA, CO

LOCATION.--Lat 38°04'05", long 102°56'13", in NE¼NW¼ sec.8, T.23 S., R.49 W., Bent County, Hydrologic Unit 11020009, at dam on Arkansas River at Caddoa, 3.2 mi southeast of Hasty, and 58 mi upstream from Colorado-Kansas State line.

DRAINAGE AREA.--18,915 mi², of which 785 mi² is probably noncontributing.

PERIOD OF RECORD.--January 1943 to current year. Monthend contents only prior to November 1943, published in WSP 1311.

GAGE.--Water-stage recorder for elevations above 3,784 ft, and nonrecording gage read once daily for those below. Datum of gage is 3,760.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Corps of Engineers); gage readings have been reduced to elevations below National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated contents: Oct. 23-26. Records good. Reservoir is formed by concrete and earthfill dam. Storage began while dam was under construction prior to 1943, and record of contents began Jan. 1, 1943. Capacity (based on 1980 resurvey; new capacity table put into use Aug. 12, 1981), 615,500 acre-ft, at elevation 3,870.00 ft, top of spillway gates, of which 345,300 acre-ft between elevations 3,774.12 ft, elevation of no contents, and 3,851.00 ft, is for irrigation, and 270,200 acre-ft between elevations 3,851.00 ft, and 3,870.00 ft, is reserved for flood control. No dead storage. Figures given represent total contents.

COOPERATION.--Capacity tables provided by U.S. Army, Corps of Engineers.

EXTREMES (AT 2400) FOR PERIOD OF RECORD.--Maximum contents, 429,600 acre-ft, Aug. 25, 1965, elevation, 3,856.16 ft; no contents at times many years.

EXTREMES (AT 2400) FOR CURRENT YEAR.--Maximum contents, 417,000 acre-ft, May 30, elevation, 3,856.79 ft; minimum contents, 208,000 acre-ft, Oct. 12, elevation, 3,837.15 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)

3,785.0	448	3,800.0	21,800	3,830.0	153,700
3,790.0	3,380	3,810.0	52,300	3,840.0	232,900
3,795.0	11,100	3,820.0	94,400	3,850.0	333,800

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	211000	228000	261000	287000	321000	336000	353000	352000	415000	360000	312000	271000
2	211000	229000	262000	288000	322000	336000	353000	351000	413000	359000	304000	270000
3	211000	231000	263000	288000	323000	336000	353000	351000	412000	358000	302000	270000
4	211000	232000	264000	289000	324000	336000	354000	351000	410000	357000	305000	269000
5	210000	234000	264000	290000	325000	337000	354000	355000	408000	356000	303000	268000
6	210000	236000	265000	290000	326000	337000	354000	355000	407000	356000	301000	268000
7	210000	239000	266000	290000	326000	337000	354000	356000	407000	355000	299000	268000
8	209000	240000	267000	292000	327000	337000	353000	358000	411000	354000	297000	268000
9	209000	241000	268000	293000	327000	338000	353000	360000	412000	354000	295000	267000
10	209000	243000	269000	295000	327000	338000	354000	360000	411000	353000	293000	265000
11	209000	244000	270000	296000	328000	339000	353000	359000	412000	352000	291000	263000
12	208000	245000	271000	298000	328000	339000	354000	358000	413000	351000	289000	264000
13	208000	247000	272000	299000	328000	340000	354000	357000	415000	350000	287000	264000
14	209000	248000	273000	300000	330000	340000	354000	356000	415000	349000	286000	264000
15	209000	250000	274000	301000	330000	340000	354000	355000	415000	348000	286000	264000
16	209000	251000	275000	302000	330000	341000	353000	356000	413000	347000	284000	263000
17	209000	252000	276000	302000	331000	341000	352000	358000	410000	346000	283000	263000
18	209000	252000	276000	302000	331000	342000	352000	361000	406000	345000	282000	263000
19	209000	253000	277000	303000	332000	343000	352000	365000	405000	344000	282000	263000
20	210000	254000	278000	304000	332000	344000	354000	369000	402000	343000	280000	263000
21	212000	255000	279000	305000	332000	346000	355000	374000	398000	341000	279000	263000
22	213000	255000	279000	306000	333000	348000	355000	380000	394000	338000	278000	262000
23	215000	256000	280000	307000	333000	350000	353000	387000	388000	336000	277000	262000
24	217000	257000	281000	308000	333000	352000	353000	395000	385000	333000	276000	262000
25	218000	257000	282000	310000	333000	352000	353000	400000	379000	331000	275000	262000
26	219000	258000	282000	311000	335000	353000	353000	405000	376000	329000	274000	262000
27	221000	258000	283000	313000	335000	354000	353000	408000	372000	327000	273000	262000
28	222000	259000	284000	315000	335000	354000	353000	411000	369000	323000	272000	262000
29	223000	260000	285000	316000	---	354000	353000	416000	366000	320000	272000	261000
30	225000	261000	286000	318000	---	354000	352000	417000	363000	317000	272000	261000
31	226000	---	286000	319000	---	353000	---	416000	---	314000	271000	---
MAX	226000	261000	286000	319000	335000	354000	355000	417000	415000	360000	312000	271000
MIN	208000	228000	261000	287000	321000	336000	352000	351000	363000	314000	271000	261000

CAL YR 1986 MAX 337000 MIN 196000
WTR YR 1987 MAX 417000 MIN 208000

07130500 ARKANSAS RIVER BELOW JOHN MARTIN RESERVOIR, CO

LOCATION.--Lat 38°03'59", long 102°55'55", in NW¼NE¼ sec.8, T.23 S., R.49 W., Bent County, Hydrologic Unit 11020009, on right bank 0.2 mi downstream from John Martin Dam, 2.6 mi upstream from Caddoa Creek, and 3.5 mi southeast of Hasty.

DRAINAGE AREA.--18,915 mi^2, of which 785 mi^2 is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1938 to current year. Published as "at Caddoa" prior to October 1947.

REVISED RECORDS.--WSP 1241: 1942(M). WSP 1341: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,737.40 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 22, 1940, at site 3 mi upstream at datum 22.83 ft, higher. Feb. 22, 1940, to Feb. 4, 1943, at site 700 ft upstream at datum 3.64 ft, higher, Feb. 5, 1943, to Apr. 8, 1975, at site 1.5 mi downstream at datum approximately 27.5 ft, lower.

REMARKS.--No estimated daily discharges. Records good. Storage diversions upstream from station for irrigation of about 438,000 acres and for flood control. Flow completely regulated by John Martin Dam (station 07130000) 0.2 mi upstream since Oct. 1948.

AVERAGE DISCHARGE.--5 years (water years 1939-43), 628 ft^3/s, unadjusted; 455,000 acre-ft/yr, during construction of John Martin Dam: 39 years (water years 1949-87), 260 ft^3/s; 188,400 acre-ft/yr, adjusted for storage in John Martin Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,000 ft^3/s, Apr. 24, 1942, gage height, 10.46 ft, site and datum then in use, from rating curve extended above 12,000 ft^3/s, on basis of flow-over-dam and critical-depth measurement of peak flow; no flow at times in 1945-47; minimum daily prior to construction of John Martin Reservoir, 5 ft^3/s, July 16, 1939.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,150 ft^3/s at 2400 May 27, gage height, 7.07 ft; minimum daily, 4.0 ft^3/s, Nov. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	318	5.8	6.3	4.4	7.5	7.3	1110	788	3080	1600	1410	412
2	308	4.0	5.8	6.3	7.8	7.3	888	969	3070	878	1390	414
3	307	4.4	5.8	8.3	7.3	7.7	897	971	3060	736	1360	421
4	305	4.4	5.3	7.8	7.3	8.3	908	876	3060	736	1300	425
5	305	4.4	5.3	7.3	7.3	8.1	909	1000	3050	736	1180	427
6	282	4.4	5.3	7.3	7.6	7.6	1130	2370	3050	771	1060	425
7	265	4.4	5.8	9.8	8.3	7.3	1190	2890	2230	591	1060	425
8	256	4.4	5.8	6.8	8.3	7.3	1190	2990	490	475	1060	405
9	252	4.0	5.8	5.8	8.3	7.3	827	2980	1660	469	1060	641
10	253	4.8	5.8	5.8	7.9	8.8	723	2970	2840	495	1060	947
11	253	4.8	5.8	5.8	7.8	9.2	784	2980	3000	523	1060	683
12	253	4.8	5.7	5.8	7.8	8.3	782	2980	3010	523	1040	391
13	259	4.8	5.3	6.3	7.8	50	1030	3020	3030	524	993	393
14	252	4.8	5.3	5.6	7.3	70	1170	3060	3020	529	787	364
15	241	4.4	4.9	6.3	7.3	70	1520	3060	3020	531	646	335
16	237	4.4	4.8	6.3	7.3	36	1850	3040	3040	544	644	325
17	235	4.8	4.8	6.5	7.5	8.0	1440	3040	3050	636	642	275
18	237	5.3	4.6	6.2	7.8	7.8	1220	3040	3040	698	644	230
19	236	4.8	4.4	6.8	7.8	7.8	1220	3040	3050	685	643	233
20	221	4.4	4.4	6.7	7.8	7.6	1630	3050	3050	681	644	231
21	170	5.3	4.4	6.7	7.8	6.7	2240	3060	3040	992	672	227
22	107	5.3	4.4	6.0	7.3	6.7	2630	3070	3040	1220	690	203
23	78	5.3	4.4	5.9	6.8	8.2	2290	3080	3030	1230	687	159
24	55	5.3	4.4	6.3	6.8	112	1310	3080	3020	1180	665	152
25	43	5.3	4.4	6.3	6.8	610	777	3080	2590	1150	640	136
26	43	5.5	4.4	6.3	7.0	700	695	3080	2050	1150	610	123
27	41	5.3	4.8	6.3	7.3	600	769	3100	1980	1110	564	121
28	38	5.3	4.4	6.1	7.5	806	816	2640	1960	1340	524	118
29	38	5.3	4.4	7.8	---	1040	699	934	1730	1510	514	113
30	25	5.8	4.4	8.2	---	1310	564	2510	1600	1460	516	138
31	5.3	---	4.4	7.3	---	1500	---	3100	---	1410	455	---
TOTAL	5918.3	146.0	155.8	205.1	211.1	7051.3	35208	79848	79940	27113	26220	9892
MEAN	191	4.87	5.03	6.62	7.54	227	1174	2576	2665	875	846	330
MAX	318	5.8	6.3	9.8	8.3	1500	2630	3100	3080	1600	1410	947
MIN	5.3	4.0	4.4	4.4	6.8	6.7	564	788	490	469	455	113
AC-FT	11740	290	309	407	419	13990	69840	158400	158600	53780	52010	19620

CAL YR 1986 TOTAL 127032.1 MEAN 348 MAX 1340 MIN 2.8 AC-FT 252000
WTR YR 1987 TOTAL 271908.5 MEAN 745 MAX 3100 MIN 4.0 AC-FT 539300

07130500 ARKANSAS RIVER BELOW JOHN MARTIN RESERVOIR, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1985 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1985 to current year.
WATER TEMPERATURE: December 1985 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--There was no specific conductance record Nov. 2-10, 15-16, 20. There was no temperature record Nov. 2-25. Daily maximum and minimum specific conductance data available in district office.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 3,540 microsiemens Feb. 26, 1986; minimum, 1,180 microsiemens July 31 to Aug. 1, 1987.
WATER TEMPERATURE: Maximum, 25.5°C Sept. 3, 1986; minimum, 1.0°C Dec. 17, 1985, Jan. 5, 1986 and Jan. 17-18, 21-22, 1987.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 2,660 microsiemens Jan. 1 and Mar. 22; minimum, 1,180 microsemiens July 31 to Aug. 1.
WATER TEMPERATURE: Maximum, 23.5°C Aug. 2, 11, 14-22; minimum, 1.0°C Jan. 17-18, 21-22.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT							
23...	1045	74	2210	8.2	9.6	0.19	<0.10
NOV							
26...	1000	5.4	2460	7.8	9.8	0.43	<0.10
DEC							
18...	0915	4.7	2450	8.1	8.3	0.37	0.10
JAN							
28...	1030	6.1	2430	7.9	8.8	0.25	0.20
FEB							
19...	1145	7.8	2400	8.1	10.8	0.35	0.40
APR							
03...	0825	916	2260	8.7	12.8	0.07	0.40
23...	1015	2250	2140	8.2	9.2	0.09	0.30
MAY							
21...	1145	3050	2010	8.1	11.1	0.34	0.10
JUN							
24...	1455	2950	1560	8.0	9.2	0.32	0.10
JUL							
23...	1200	1240	1390	8.1	8.6	0.02	0.20
AUG							
11...	1350	1080	1400	7.9	8.4	0.06	0.20
SEP							
10...	1315	974	1500	8.40	8.8	0.04	<0.10

07130500 ARKANSAS RIVER BELOW JOHN MARTIN RESERVOIR, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2310	---	2490	2500	2400	2430	2210	2360	2000	1430	1290	1500
2	2300	---	2460	2490	2390	2380	2210	2320	1990	1420	1350	1480
3	2290	---	2420	2480	2410	2380	2230	2230	1900	1410	1370	1470
4	2260	---	2410	2470	2390	2450	2240	2180	1870	1400	1380	1470
5	2230	---	2410	2430	2370	2410	2240	2160	1830	1390	1380	1490
6	2230	---	2400	2400	2370	2440	2230	2010	1830	1400	1390	1500
7	2230	---	2390	2380	2360	2440	2240	1910	1840	1390	1400	1510
8	2230	---	2410	2400	2400	2430	2250	1960	1870	1380	1420	1510
9	2220	---	2410	2360	2390	2440	2260	2020	1820	1380	1420	1510
10	2220	---	2410	2370	2380	2500	2260	2060	1780	1380	1410	1490
11	2210	2410	2410	2340	2390	2460	2260	2010	1750	1390	1410	1470
12	2210	2480	2390	2360	2390	2410	2270	2010	1700	1390	1430	1470
13	2200	2490	2410	2370	2430	2300	2260	2030	1680	1400	1440	1470
14	2200	2360	2390	2370	2400	2170	2250	2030	1660	1400	1450	1480
15	2210	---	2400	2400	2390	2150	2240	2030	1650	1410	1450	1490
16	2200	---	2400	2470	2410	2240	2250	2020	1640	1410	1420	1500
17	2200	2370	2410	2430	2390	2350	2250	2020	1630	1400	1430	1500
18	2220	2390	2410	2440	2420	2380	2260	2020	1590	1400	1450	1490
19	2230	2380	2430	2450	2440	2440	2260	2020	1620	1410	1450	1480
20	2230	---	2450	2490	2430	2390	2230	2010	1570	1410	1420	1470
21	2230	2390	2500	2440	2400	2430	2200	2010	1510	1400	1410	1360
22	2220	2450	2470	2480	2450	2410	2170	2010	1480	1390	1330	1470
23	2230	2530	2450	2460	2470	2370	2150	1990	1680	1380	1330	1390
24	2240	2540	2440	2430	2490	2290	2190	2000	1580	1370	1380	1400
25	2240	2520	2460	2430	2450	2140	2230	1980	1450	1340	1400	1470
26	2220	2530	2470	2420	2420	1960	2280	1990	1500	1410	1390	1420
27	2230	2470	2450	2390	2430	1910	2300	1980	1590	1420	1400	1440
28	2210	2440	2440	2390	2410	1820	2330	2010	1510	1440	1410	1400
29	2230	2430	2460	2440	---	1560	2350	2020	1500	1410	1420	1440
30	2220	2470	2480	2430	---	1490	2370	2020	1460	1310	1440	1440
31	---	---	2480	2450	---	2180	---	2010	---	1260	1490	---
MEAN	---	---	2433	2425	2410	2263	2249	2046	1683	1391	1405	1466
MAX	---	---	2500	2500	2490	2500	2370	2360	2000	1440	1490	1510
MIN	---	---	2390	2340	2360	1490	2150	1910	1450	1260	1290	1360

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.0	17.5	9.5	5.0	6.0	4.0	5.0	2.0	6.0	2.5	8.0	2.0
2	18.0	17.5	---	---	6.0	3.5	5.5	3.0	6.0	3.0	8.0	3.0
3	17.5	17.0	---	---	6.0	3.0	5.0	3.0	6.0	3.5	9.5	3.5
4	17.5	17.0	---	---	6.5	4.0	5.5	3.0	5.5	4.0	10.5	4.5
5	17.0	16.5	---	---	6.0	4.5	6.0	3.5	5.5	2.5	11.0	5.0
6	17.0	16.5	---	---	5.0	4.0	5.5	3.5	6.0	2.5	12.0	5.5
7	17.0	16.5	---	---	5.5	3.5	5.0	3.5	6.0	2.5	13.5	6.5
8	17.0	16.0	---	---	5.5	3.5	4.5	3.0	6.0	3.0	9.0	6.5
9	16.5	16.0	---	---	4.5	3.0	4.5	2.0	6.0	2.5	7.5	5.0
10	16.5	16.0	---	---	4.0	2.0	4.0	1.5	6.0	3.0	7.5	4.5
11	16.0	15.0	---	---	4.5	1.5	4.5	1.5	7.0	3.0	9.5	4.5
12	15.0	14.0	---	---	5.0	2.0	5.5	2.5	7.0	3.5	11.0	5.5
13	15.0	14.0	---	---	5.0	3.0	5.5	2.5	8.0	4.0	7.5	6.0
14	15.0	14.0	---	---	5.5	2.5	4.5	3.0	5.5	4.5	7.0	5.5
15	14.5	14.0	---	---	5.5	3.0	3.0	1.5	6.0	4.5	6.5	5.5
16	14.5	14.0	---	---	5.5	3.0	3.5	1.5	5.5	4.5	7.0	5.5
17	14.5	13.5	---	---	4.5	3.0	3.0	1.0	7.0	4.0	5.5	4.5
18	14.0	13.0	---	---	5.5	3.0	3.5	1.0	6.0	3.5	10.0	3.5
19	13.5	12.5	---	---	5.0	2.0	3.5	2.0	5.5	4.0	9.5	5.0
20	13.0	13.0	---	---	5.5	2.5	3.5	1.5	5.5	3.0	9.5	5.5
21	13.5	13.0	---	---	6.0	3.0	3.0	1.0	6.5	2.5	12.0	5.5
22	14.0	13.0	---	---	6.0	3.5	3.0	1.0	7.5	3.0	9.5	6.5
23	13.5	12.5	---	---	6.0	3.0	3.0	1.5	7.0	3.0	7.0	5.0
24	14.0	7.0	---	---	6.0	3.0	3.5	2.0	7.5	3.5	5.5	3.5
25	14.5	6.5	---	---	6.0	3.0	3.5	2.0	8.5	4.0	5.5	5.0
26	15.0	7.5	7.5	3.0	6.0	3.0	4.0	2.0	6.5	5.0	5.5	5.0
27	17.5	7.0	6.5	4.5	5.5	3.0	5.0	2.5	7.5	3.5	5.5	5.0
28	16.0	7.0	6.0	5.0	6.0	2.5	5.5	3.0	6.5	2.5	5.5	5.0
29	17.0	5.0	8.5	5.5	5.5	2.5	6.0	2.5	---	---	5.0	4.5
30	19.5	7.5	6.5	4.5	6.0	2.5	5.5	2.5	---	---	5.0	4.5
31	15.0	6.0	---	---	5.5	3.0	5.5	4.0	---	---	5.5	5.0
MONTH	19.5	5.0	---	---	6.5	1.5	6.0	1.0	8.5	2.5	13.5	2.0

07130500 ARKANSAS RIVER BELOW JOHN MARTIN RESERVOIR, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.5	5.0	10.5	10.0	15.0	14.5	20.5	20.0	22.5	22.0	22.0	21.0
2	5.5	5.0	10.5	10.0	15.0	14.5	21.0	20.5	23.5	22.5	22.0	21.0
3	5.5	5.0	13.0	10.5	15.0	14.5	21.0	20.5	23.0	22.5	22.0	20.5
4	5.0	4.5	13.0	11.5	15.0	15.0	21.5	20.5	23.0	22.5	21.5	20.5
5	5.0	5.0	12.0	12.0	16.0	15.0	22.0	20.5	23.0	22.5	21.5	21.0
6	5.5	5.0	12.0	12.0	15.5	15.0	21.5	21.0	23.0	22.5	21.5	21.0
7	5.5	5.0	12.5	12.0	15.5	14.5	21.5	21.0	23.0	22.5	21.5	21.0
8	6.0	5.0	12.5	12.0	15.5	14.5	22.5	21.0	23.0	22.5	21.5	21.0
9	6.5	5.5	12.5	12.0	16.0	15.0	22.0	21.0	23.0	22.5	21.5	21.0
10	6.5	6.0	12.5	12.0	16.5	16.0	22.0	21.0	23.0	22.5	21.5	21.0
11	7.0	6.5	12.5	12.0	16.0	16.0	22.0	21.5	23.5	23.0	21.5	20.5
12	6.5	6.0	12.5	12.0	16.5	16.0	22.0	21.5	23.0	23.0	21.5	20.5
13	7.0	6.5	12.5	12.0	16.5	16.0	22.0	21.5	23.0	23.0	21.0	20.5
14	7.0	6.5	12.5	12.0	16.5	16.5	22.5	21.5	23.5	23.0	21.0	20.0
15	7.5	7.0	12.5	12.0	17.0	16.5	22.0	21.5	23.5	23.0	20.5	20.0
16	8.0	7.0	12.5	12.0	17.0	16.5	22.0	21.5	23.5	23.0	20.5	19.5
17	7.5	7.5	12.5	12.0	17.0	16.5	22.0	21.5	23.5	23.0	20.5	19.5
18	8.0	7.5	12.5	12.0	18.0	17.0	22.0	21.5	23.5	23.0	20.5	20.0
19	8.0	7.5	12.5	12.0	18.5	17.5	22.0	21.5	23.5	23.0	20.5	19.5
20	9.0	7.5	12.5	12.0	18.0	18.0	22.0	21.5	23.5	23.0	20.0	19.5
21	9.5	8.5	12.5	12.0	18.5	18.0	22.0	21.5	23.5	23.0	20.0	19.5
22	10.0	9.5	13.0	12.5	18.5	18.5	22.0	21.5	23.5	23.0	20.0	19.0
23	10.0	9.5	14.0	13.0	19.0	18.5	22.0	21.5	23.0	23.0	20.0	19.0
24	9.5	9.0	14.0	13.0	19.0	18.5	22.0	22.0	23.0	22.5	20.0	18.5
25	10.0	9.5	15.0	13.5	19.0	18.5	22.0	21.5	23.0	22.0	20.0	19.0
25	10.0	9.5	14.5	13.5	19.5	19.0	22.0	21.5	22.5	22.0	20.0	19.0
27	10.0	9.5	14.5	13.5	19.5	19.0	22.0	21.5	22.0	21.5	20.0	19.0
28	10.5	9.5	14.0	13.5	20.0	19.5	22.0	21.5	22.0	21.5	19.5	18.5
29	10.5	10.0	14.5	13.5	20.5	19.5	22.0	22.0	22.0	21.5	19.5	18.5
30	10.5	9.5	14.5	14.0	20.0	19.5	22.0	22.0	22.0	21.5	19.5	18.0
31	---	---	14.5	14.0	---	---	22.0	22.0	22.0	21.5	---	---
MONTH	10.5	4.5	15.0	10.0	20.5	14.5	22.5	20.0	23.5	21.5	22.0	18.0

07133000 ARKANSAS RIVER AT LAMAR, CO

LOCATION.--Lat 38°06'21", long 102°37'05", in NE¼SE¼ sec.30, T.22 S., R.46 W., Prowers County, Hydrologic Unit 11020009, on left bank at downstream side of bridge on U.S. Highways 50 and 287, and 1.3 mi north of courthouse in Lamar.

DRAINAGE AREA.--19,780 mi^2, of which 950 mi^2 is probably noncontributing.

PERIOD OF RECORD.--Streamflow records, May 1913 to September 1955, April 1959 to current year. Monthly discharge only for some periods, published in WSP 1311. Water-quality data available, November 1963 to September 1965, September 1969 to August 1972.

REVISED RECORDS.--WSP 1341: 1921(M), 1945-46(M), drainage area; WRD CO-86-1: 1985 (daily discharges).

GAGE.--Water-stage recorder. Datum of gage is 3,602.23 ft above National Geodetic Vertical Datum of 1929. See WSP 1731 for history of changes prior to Apr. 4, 1959. Apr. 4, 1959, to Mar. 26, 1968, at site 450 ft upstream at datum 2.42 ft, higher. Mar. 27, 1968 to Nov. 17, 1982 at datum 4.00 ft, lower. Prior to Mar. 18, 1987, at site 75 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Oct. 13-21, Jan. 8-11, 15-23, Aug. 18 to Sept. 9 and Sept. 13-16. Records good except for periods of no gage-height record, Oct. 13-21, Aug. 18 to Sept. 9 and Sept. 13-16, which are poor and the remaining periods of estimated discharge which are ice effected are fair. Flow regulated by John Martin Reservoir (station 07130000) 21 mi upstream since Oct. 1948. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 487,000 acres, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--30 years (water years 1914-43), 298 ft^3/s; 215,900 acre-ft/yr, prior to and during construction of John Martin Dam, 35 years (water years 1949-55, 1960-87), 112 ft^3/s, unadjusted; 81,140 acre-ft/yr, subsequent to completion of John Martin Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 130,000 ft^3/s, June 5, 1921, gage height, 14.55 ft, datum then in use, from rating curve extended above 10,000 ft^3/s; maximum gage height, 16.48 ft, June 18, 1965, datum then in use, from floodmarks; no flow at times in 1913-15, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,220 ft^3/s at 2000 May 25, gage height, 10.74 ft; minimum daily, 13 ft^3/s, Mar. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	65	45	35	28	41	1350	119	2680	1100	732	40
2	21	61	41	30	28	41	1000	455	2620	956	718	35
3	20	59	42	30	28	39	952	554	2570	423	692	34
4	20	62	41	32	28	39	956	830	2540	394	656	32
5	19	58	41	33	28	43	956	522	2520	389	588	28
6	20	56	41	34	28	40	1040	1380	2500	379	426	25
7	20	57	40	34	28	41	1240	2510	2500	405	399	30
8	20	57	39	32	28	41	1240	2740	549	366	405	35
9	20	63	38	32	28	37	1090	2700	433	177	412	40
10	23	62	25	32	28	39	694	2650	1980	113	427	499
11	23	61	25	32	28	46	801	2630	2410	95	466	540
12	36	59	27	32	28	29	810	2730	2400	98	481	151
13	30	61	27	34	28	16	908	2650	2350	98	488	105
14	30	54	38	33	32	22	1200	2670	2340	61	449	60
15	28	54	39	32	46	41	1270	2540	2320	37	160	40
16	27	52	39	30	44	53	1710	2460	2300	30	117	35
17	28	51	39	30	39	38	1710	2490	2280	29	103	22
18	35	51	38	30	38	22	1220	2480	2270	34	80	23
19	50	50	38	30	37	13	1210	2470	2450	34	70	22
20	84	47	37	30	36	17	1300	2560	2350	35	60	21
21	80	47	36	30	35	38	1900	2580	2290	116	50	20
22	79	43	36	30	35	36	2380	2650	2340	528	45	20
23	84	42	34	30	34	35	2480	2650	2290	597	50	19
24	92	42	34	34	33	29	1330	2710	2300	554	60	19
25	94	41	34	33	34	146	520	3110	2260	495	55	19
26	85	40	34	32	39	788	305	2770	1500	479	55	19
27	79	41	36	32	48	565	281	2680	1370	471	65	19
28	72	43	33	31	43	684	362	2680	1400	510	60	20
29	67	44	31	29	---	997	313	641	1380	841	45	18
30	66	44	35	29	---	1070	141	1390	1120	814	45	18
31	63	---	31	29	---	1360	---	2430	---	747	40	---
TOTAL	1436	1567	1114	976	937	6446	32669	66431	62612	11405	8499	2008
MEAN	46.3	52.2	35.9	31.5	33.5	208	1089	2143	2087	368	274	66.9
MAX	94	65	45	35	48	1360	2480	3110	2680	1100	732	540
MIN	19	40	25	29	28	13	141	119	433	29	40	18
AC-FT	2850	3110	2210	1940	1860	12790	64800	131800	124200	22620	16860	3980

CAL YR 1986 TOTAL 57590 MEAN 158 MAX 947 MIN 1.5 AC-FT 114200
WTR YR 1987 TOTAL 196100 MEAN 537 MAX 3110 MIN 13 AC-FT 389000

07134180 ARKANSAS RIVER NEAR GRANADA, CO

LOCATION.--Lat 38°05'44", long 102°18'37", in SE¼NE¼ sec.36, T.22 S., R.44 W., Prowers County, Hydrologic Unit 11020009, on left bank at upstream side at end of bridge on U.S. Highway 385, 1.2 mi downstream from headgate of Buffalo Canal and 2.3 mi north of Granada.

DRAINAGE AREA.--23,707 mi^2.

PERIOD OF RECORD.--January 1899 to December 1901, gage heights only at different site and datum, August to October 1903, December 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,480 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 9-15, 19-21. Records good except for periods of estimated daily discharges and those above 3,000 ft^3/s, which are fair. Flow regulated by John Martin Reservoir (station 07130000) 38 mi upstream since October 1948. Natural flow of stream affected by transmountain diversion, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 500,000 acres, and return flow from irrigated areas. Several observation of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 259 ft^3/s; 187,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 3,460 ft^3/s, May 26, 1987, gage height, 11.78 ft, from rating curve extended above 2,700 ft^3/s; minimum daily, 3.3 ft^3/s, May 27-28, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,460 ft^3/s at 0130 May 26, gage height, 11.78 ft, from rating curve extended above 2,700 ft^3/s; minimum daily, 37 ft^3/s, Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	127	140	129	138	157	1490	166	2540	1350	770	85
2	48	136	154	131	133	151	1300	219	2640	1250	759	78
3	49	135	156	130	132	147	1060	328	2590	843	758	71
4	50	129	151	134	133	145	966	669	2590	602	719	62
5	49	131	148	136	132	143	968	474	2620	535	627	59
6	44	126	149	135	131	137	979	586	2580	482	475	56
7	44	123	148	132	132	132	1130	1270	2530	452	432	61
8	41	122	148	136	133	130	1270	1970	1890	478	426	77
9	37	125	147	135	134	124	1270	2320	446	375	428	80
10	40	132	139	135	133	118	945	2510	1180	291	439	143
11	55	135	135	135	135	119	867	2520	2080	233	446	334
12	60	154	141	135	133	120	884	2560	2370	206	470	297
13	63	155	155	132	134	120	903	2610	2380	198	474	157
14	58	179	150	125	137	102	1130	2560	2400	194	465	113
15	59	176	151	120	158	100	1230	2570	2400	184	346	88
16	55	187	146	122	161	110	1390	2470	2420	169	228	78
17	52	178	145	114	154	132	1670	2450	2360	158	180	66
18	57	187	143	118	149	119	1560	2460	2310	147	146	61
19	70	186	141	120	149	111	1290	2470	2400	152	126	54
20	90	166	139	120	149	106	1230	2550	2510	147	111	52
21	142	156	137	120	148	103	1400	2640	2420	137	98	55
22	139	152	136	118	146	101	1800	2720	2370	260	88	55
23	138	148	135	127	145	104	2110	2820	2380	468	95	52
24	141	145	134	135	143	111	2180	2870	2370	534	105	49
25	152	146	132	141	141	116	1130	3160	2410	516	100	46
26	149	143	131	144	146	444	562	3330	2220	500	97	44
27	140	146	133	143	170	588	402	3010	1730	501	116	43
28	135	143	134	142	165	608	389	2900	1620	464	107	42
29	128	144	132	140	---	774	370	2250	1580	701	92	41
30	128	147	131	136	---	987	265	928	1530	799	89	39
31	125	---	133	137	---	1250	---	1870	---	781	85	---
TOTAL	2582	4459	4394	4057	3994	7709	34140	64230	65866	14107	9897	2538
MEAN	83.3	149	142	131	143	249	1138	2072	2196	455	319	84.6
MAX	152	187	156	144	170	1250	2180	3330	2640	1350	770	334
MIN	37	122	131	114	131	100	265	166	446	137	85	39
AC-FT	5120	8840	8720	8050	7920	15290	67720	127400	130600	27980	19630	5030

CAL YR 1986 TOTAL 78972 MEAN 216 MAX 1360 MIN 23 AC-FT 156600
WTR YR 1987 TOTAL 217973 MEAN 597 MAX 3330 MIN 37 AC-FT 432300

07137000 FRONTIER DITCH NEAR COOLIDGE, KS

LOCATION.--Lat 38°02'18", long 102°02'19", in SW¼SE¼NE¼ sec.21, T.23 S., R.43 W., Hamilton County, Kans., Hydrologic Unit 11030001, on left bank 0.3 mi east of Colorado-Kansas State line, 0.5 mi downstream from Holly drain diversion, 1.5 mi west of Coolidge, and 2.3 mi downstream from diversion from Arkansas River.

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WSP 1731: 1951.

GAGE.--Water-stage recorders and Parshall flume. Datum of gage is 3,353.14 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 4 to Dec. 2. Records good except for estimated daily discharges, which are poor. This ditch diverts water from Arkansas River in Colorado for use in Kansas. These records and records for Arkansas River near Coolidge (station 07137500) represent total flow of Arkansas River at the Colorado-Kansas State line.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 84 ft^3/s, Aug. 1, 1975; no flow for many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	.00	.00	.00	.00	.00	.00	39	8.1	6.6	49	30
2	19	.00	.00	.00	.00	.00	.00	42	10	16	49	32
3	.00	.00	.00	.00	.00	.00	.00	48	9.5	22	49	27
4	.00	.00	.00	.00	.00	.00	.00	50	8.6	8.3	48	24
5	.00	.00	.00	.00	.00	.00	.00	42	7.9	9.5	46	27
6	.00	.00	.00	.00	.00	.00	.00	31	18	19	44	29
7	.00	.00	.00	.00	.00	.00	.00	42	30	26	42	34
8	3.2	.00	.00	.00	.00	.00	.00	42	29	29	40	15
9	17	.00	.00	.00	.00	.00	.00	40	18	19	36	20
10	15	.00	.00	.00	.00	.00	.00	40	34	17	35	7.2
11	16	.00	.00	.00	.00	.00	.00	41	44	17	33	.00
12	23	.00	.00	.00	.00	.00	.00	35	38	15	34	.00
13	11	.00	.00	.00	.00	.00	.00	37	36	16	35	.00
14	7.2	.00	.00	.00	.00	.00	.00	38	39	33	36	.00
15	6.4	.00	.00	.00	.00	.00	.00	40	41	32	37	11
16	8.5	.00	.00	.00	.00	.00	.00	41	39	27	30	33
17	8.3	.00	.00	.00	.00	.00	.00	39	41	12	11	28
18	9.4	.00	.00	.00	.00	.00	.00	39	38	6.9	19	25
19	10	.00	.00	.00	.00	.00	.00	39	33	8.9	32	27
20	10	.00	.00	.00	.00	.00	.00	41	20	11	35	32
21	15	.00	.00	.00	.00	.00	.00	42	19	5.5	34	36
22	17	.00	.00	.00	.00	.00	.00	44	20	4.9	34	35
23	14	.00	.00	.00	.00	.00	.00	44	19	25	30	20
24	10	.00	.00	.00	.00	.00	.00	42	24	37	32	.00
25	4.0	.00	.00	.00	.00	.00	.00	41	23	49	30	.00
26	.00	.00	.00	.00	.00	.00	.00	23	23	47	36	.00
27	.00	.00	.00	.00	.00	.00	.00	27	7.9	46	36	.00
28	.00	.00	.00	.00	.00	.00	15	19	2.1	45	32	.00
29	.00	.00	.00	.00	---	.00	37	17	20	46	41	.00
30	.00	.00	.00	.00	---	.00	38	4.2	17	51	15	.00
31	.00	---	.00	.00	---	.00	---	4.1	---	52	11	---
TOTAL	247.00	.00	.00	.00	.00	.00	90.00	1113.3	717.1	759.6	1071	492.20
MEAN	7.97	.000	.000	.000	.000	.000	3.00	35.9	23.9	24.5	34.5	16.4
MAX	23	.00	.00	.00	.00	.00	38	50	44	52	49	36
MIN	.00	.00	.00	.00	.00	.00	.00	4.1	2.1	4.9	11	.00
AC-FT	490	.00	.00	.00	.00	.00	179	2210	1420	1510	2120	976

CAL YR 1986 TOTAL 3492.65 MEAN 9.57 MAX 63 MIN .00 AC-FT 6930
WTR YR 1987 TOTAL 4490.20 MEAN 12.3 MAX 52 MIN .00 AC-FT 8910

07137500 ARKANSAS RIVER NEAR COOLIDGE, KS

LOCATION.--Lat 38°01'34", long 102°00'41", in NW¼NE¼NW¼ sec.26, T.23 S., R.43 W., Hamilton County, KS, Hydrologic Unit 11030001, on right bank at downstream side of bridge, 1.0 mi south of Coolidge, and 1.9 mi downstream from Colorado-Kansas State line.

DRAINAGE AREA.--25,410 mi^2, of which 1,708 mi^2 is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to October 1903, March to May 1921, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1341: 1903, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,330.84 ft above National Geodetic Vertical Datum of 1929. May 5 to Oct. 31, 1903, nonrecording gage, and Mar. 1 to May 31, 1921, water-stage recorder at present site at different datums. Oct. 1, 1950, to Mar. 31, 1966, water-stage recorder at site 0.3 mi upstream at datum 3.00 ft, higher.

REMARKS.--Estimated daily discharges: Jan. 1-4, Mar. 16, 17, and July 3-5. Records good except those for estimated daily discharges, which are poor. Combined flow of river and Frontier Ditch (station 07137000) represents entire flow that enters Kansas. Flow regulated by John Martin Reservoir (station 07130000) since Oct. 1948. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation of about 500,000 acres, and return flow from irrigated areas.

AVERAGE DISCHARGE.--37 years (water years 1951-87), 201 ft^3/s; 145,600 acre-ft/yr, subsequent to completion of John Martin Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 158,000 ft^3/s, June 17, 1965, gage height, 14.8 ft, present site and datum, from floodmarks, from rating curve extended above 13,000 ft^3/s, on basis of slope-area measurement of peak flow; no flow for many days in 1903, 1954, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,720 ft^3/s, June 30, gage height, 8.44 ft; minimum daily, 159 ft^3/s, Jan. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	204	255	203	174	181	198	1230	319	2400	1870	760	253
2	214	268	201	179	179	190	1320	265	2760	1680	745	239
3	234	281	215	181	178	188	1090	386	2830	1590	754	220
4	231	288	210	183	183	185	1030	597	2820	1400	777	204
5	227	291	201	185	182	191	1040	812	2840	1140	739	203
6	223	295	207	173	180	190	1050	634	2840	908	675	234
7	221	291	211	162	179	185	1090	997	2770	814	550	298
8	204	279	213	166	178	179	1270	1460	2740	821	524	235
9	176	267	210	172	181	171	1330	1950	1400	715	523	242
10	171	268	203	175	180	166	1240	2200	1040	536	547	284
11	163	244	193	177	177	170	955	2250	1880	471	542	494
12	196	276	196	180	177	170	981	2270	2310	481	559	509
13	231	235	204	188	179	164	1000	2460	2420	458	572	368
14	239	246	204	193	183	167	1080	2480	2430	383	568	338
15	242	249	198	178	198	175	1260	2570	2530	354	529	305
16	251	251	198	168	198	189	1320	2650	2510	330	421	283
17	242	249	195	173	192	196	1510	2660	2480	314	382	259
18	235	244	192	159	185	200	1600	2600	2450	296	308	252
19	229	254	188	168	187	183	1400	2500	2620	290	279	225
20	259	235	190	172	188	180	1310	2560	2720	287	259	217
21	426	231	195	177	183	176	1300	2660	2690	268	243	235
22	386	233	183	176	179	165	1590	2750	2660	273	227	262
23	389	229	181	178	182	168	1860	2850	2630	450	231	285
24	362	227	181	182	180	170	2140	2900	2740	548	252	270
25	331	229	186	184	178	167	1930	3090	2720	543	241	248
26	311	218	184	187	178	217	1160	3290	2700	526	230	262
27	287	212	181	187	200	581	843	3230	2270	534	243	255
28	273	211	178	186	208	566	689	3090	1990	513	248	237
29	242	209	175	183	---	604	573	3050	2070	551	242	222
30	228	208	175	176	---	840	440	1880	2500	735	292	209
31	237	---	172	186	---	1010	---	1880	---	766	287	---
TOTAL	7864	7473	6023	5508	5153	8306	36631	65290	73760	20845	13749	8147
MEAN	254	249	194	178	184	268	1221	2106	2459	672	444	272
MAX	426	295	215	193	208	1010	2140	3290	2840	1870	777	509
MIN	163	208	172	159	177	164	440	265	1040	268	227	203
AC-FT	15600	14820	11950	10930	10220	16470	72660	129500	146300	41350	27270	16160

CAL YR 1986 TOTAL 115805 MEAN 317 MAX 2000 MIN 102 AC-FT 229700
WTR YR 1987 TOTAL 258749 MEAN 709 MAX 3290 MIN 159 AC-FT 513200

07137500 ARKANSAS RIVER NEAR COOLIDGE, KS--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-68, 1970-73, 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1963 to September 1968, January 1976 to September 1981.
WATER TEMPERATURES: November 1963 to September 1968, January 1976 to September 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BARO-METRIC PRES-SURE (MM OF HG)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT									
15...	1045	241	3630	8.3	8.0	9.8	684	K29	1500
MAR									
04...	1100	192	4640	8.2	8.0	9.8	685	<3	1000
31...	1200	938	--	--	10.0	--	--	--	--
APR									
29...	1230	558	2880	8.5	15.0	8.4	677	--	--
MAY									
11...	1155	2410	2380	8.1	23.0	--	--	--	--
28...	1100	3100	2220	7.9	18.0	--	--	--	--
JUL									
28...	1030	557	2240	8.2	22.0	8.4	680	--	--

DATE	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	BICAR-BONATE WH WAT TOTAL FIELD MG/L AS HCO3	CAR-BONATE WH WAT TOTAL FIELD MG/L AS CO3
OCT										
15...	750	1300	280	150	450	6	12	269	330	--
MAR										
04...	17	1800	380	200	550	6	11	294	360	--
APR										
29...	83	1000	220	110	330	5	9.3	--	190	48
JUL										
28...	25	720	150	84	230	4	7.0	19	230	--

DATE	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)
OCT										
15...	2.6	2000	140	1.0	17	3410	4.6	2220	2.40	0.18
MAR										
04...	3.6	2500	180	1.0	17	4190	5.7	2170	--	--
APR										
29...	0.9	1500	92	0.90	7.2	2560	3.5	3860	1.10	0.21
JUL										
28...	2.3	1000	67	0.90	9.7	1840	2.5	2770	1.10	0.09

K Results based on colony count outside the acceptable range (non-ideal colony count).

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS NO2)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
OCT										
15...	0.03	0.130	0.140	1.6	0.010	1.5	0.06	0.180	0.030	0.020
MAR										
04...	--	--	--	--	--	--	--	--	--	--
APR										
29...	0.07	0.120	0.160	2.0	0.020	1.9	--	0.280	0.020	<0.010
JUL										
28...	--	0.050	0.070	1.0	<0.010	0.95	0.09	0.180	0.060	0.030

07137500 ARKANSAS RIVER NEAR COOLIDGE, KS--Continued
(National stream-quality accounting network station)

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
OCT 15...	20	1	100	<10	<1	<1	<1	4	30	<5
MAR 04...	<10	<1	<100	<10	1	<1	2	4	40	<5
APR 29...	20	<1	100	<10	<1	<1	<1	5	20	<5
JUL 28...	<10	1	<100	<10	<1	<1	<1	2	20	<5

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 15...	150	20	0.2	11	3	19	<1	6000	2	90
MAR 04...	190	30	1.4	6	4	28	<1	7200	<100	20
APR 29...	110	40	<0.1	5	2	4	<1	4400	<70	20
JUL 28...	90	<10	1.2	7	2	10	<1	3000	3	<10

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
OCT 15...	1045	494	321	94	--	45	--	--	--	--	--
MAR 04...	1100	115	60	68	--	--	--	73	85	100	--
31...	1200	556	1410	65	--	34	--	70	77	95	100
APR 29...	1230	349	526	85	--	34	--	91	96	100	--
MAY 11...	1155	588	3830	46	--	28	--	46	49	65	100
28...	1100	340	2850	89	44	57	76	89	92	99	100
JUL 28...	1030	389	585	50	--	--	--	--	--	--	--

RIO GRANDE BASIN

08213500 RIO GRANDE AT THIRTYMILE BRIDGE, NEAR CREEDE, CO

LOCATION.--Lat 37°43'29", long 107°15'18", in NE¼ sec.13, T.40 N., R.4 W., Hinsdale County. Hydrologic Unit 13010001, on right bank 70 ft downstream from bridge, 500 ft upstream from Squaw Creek, 0.8 mi downstream from Rio Grande Reservoir, and 20 mi southwest of Creede.

DRAINAGE AREA.--163 mi².

PERIOD OF RECORD.--June 1909 to September 1923, May 1925 to current year. No winter records 1910, 1926. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Elevation of gage is 9,300 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1712 or 1732 for history of changes prior to Oct. 1, 1934.

REMARKS.--Estimated daily discharges: Oct. 13-15, Nov. 9-18, Nov. 20 to Apr.24, Apr. 27, 28, 30, May 1, 12, 16-19, June 1, Aug. 11, 20, Sept. 8, 11, 14-18, 21-25, and Sept. 28-30. Records good except for estimated daily discharges, which are fair. Flow regulated by Rio Grande Reservoir, capacity, 51,110 acre-ft, since 1912. Natural flow of stream affected by transmountain diversions from Colorado River basin to drainage area upstream from station through Weminuche Pass and Pine River-Weminuche Pass ditches. No known diversions upstream from station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--73 years (water years 1911-23, 1927-87), 216 ft³/s; 156,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,500 ft³/s, June 28, 1927, gage height, 7.03 ft, present datum, from rating curve extended above 1,200 ft³/s; minimum daily, 0.10 ft³/s, Nov. 2-4, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,400 ft³/s at 2200 June 21, gage height, 3.23 ft; minimum daily, 0.50 ft³/s, many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	172	80	74	46	42	36	54	236	382	1310	1020	102
2	177	113	76	52	40	36	64	432	514	1260	1030	104
3	188	150	76	42	44	40	60	427	778	1300	1010	107
4	162	145	80	42	44	40	80	395	810	1290	970	100
5	177	111	84	44	40	44	76	405	305	1280	858	97
6	180	104	88	44	38	44	80	332	35	1280	778	94
7	174	96	82	42	40	46	66	395	37	1150	746	90
8	180	111	76	42	42	56	74	508	40	1140	715	88
9	188	90	70	36	42	58	80	508	42	1130	678	100
10	188	92	44	38	42	56	78	508	316	1120	648	84
11	188	92	46	38	50	50	90	508	546	1110	324	66
12	185	94	48	40	50	50	100	571	866	1100	150	89
13	170	92	48	40	46	52	120	882	1200	930	185	76
14	165	92	46	40	56	58	150	848	1330	794	208	62
15	160	92	50	42	44	58	170	946	1340	850	260	75
16	164	92	50	42	50	60	170	431	1360	1010	282	39
17	160	92	54	36	48	48	180	5.0	1370	1130	302	.50
18	162	90	56	32	46	50	170	5.0	1380	1190	370	64
19	160	95	50	38	46	54	170	187	1390	1100	432	172
20	162	89	48	36	46	48	160	613	1390	946	326	83
21	154	95	50	36	36	48	150	954	1390	874	395	27
22	145	86	48	34	38	50	200	1260	1390	874	337	.50
23	138	83	46	38	40	48	230	1230	872	914	286	.50
24	143	78	50	42	48	50	220	1190	708	930	260	.50
25	106	80	50	44	48	50	286	1150	451	914	278	68
26	123	90	42	42	52	52	266	1100	890	850	249	208
27	125	76	44	42	42	56	174	1070	1060	770	162	124
28	125	76	46	44	36	54	197	1020	1320	722	140	19
29	120	76	44	42	---	54	400	762	1320	715	129	.50
30	125	84	46	42	---	44	266	502	1320	778	119	.50
31	121	---	46	44	---	50	---	438	---	922	109	---
TOTAL	4887	2836	1758	1262	1236	1540	4601	19818.0	26152	31683	13756	2141.00
MEAN	158	94.5	56.7	40.7	44.1	49.7	153	639	872	1022	444	71.4
MAX	188	150	88	52	56	60	400	1260	1390	1310	1030	208
MIN	106	76	42	32	36	36	54	5.0	35	715	109	.50
AC-FT	9690	5630	3490	2500	2450	3050	9130	39310	51870	62840	27290	4250

CAL YR 1986 TOTAL 128754.00 MEAN 353 MAX 2050 MIN 10 AC-FT 255400
WTR YR 1987 TOTAL 111670.00 MEAN 306 MAX 1390 MIN .50 AC-FT 221500

08214500 NORTH CLEAR CREEK BELOW CONTINENTAL RESERVOIR, CO

LOCATION.--Lat 37°53'18", long 107°12'10", in NE¼SW¼ sec.21, T.42 N., R.3 S., Hinsdale County, Hydrologic Unit 13010001, on left bank 100 ft downstream from bridge, 1,000 ft downstream from Continental Reservoir, and 15 mi west of Creede.

DRAINAGE AREA.--51.7 mi^2.

PERIOD OF RECORD.--May 1929 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1960, published as Clear Creek below Continental Reservoir.

REVISED RECORDS.--WSP 1008: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 10,200 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 2, 1951, at site 150 ft upstream, at different datum.

REMARKS.--Estimated daily discharges: Nov. 24 to May 20. Records good except for estimated daily discharges, which are fair. Flow regulated by Continental Reservoir, capacity, 26,720 acre-ft. No diversion upstream from station.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--58 years, 30.9 ft^3/s; 22,390 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 362 ft^3/s, May 8, 1952, gage height, 3.66 ft, from rating curve extended above 120 ft^3/s; no flow, June 22, 23, 1935.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined; minimum daily, 0.65 ft^3/s, Nov. 10-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	15	.95	.95	1.0	1.0	1.0	150	121	87	58	95
2	3.6	15	.95	.95	1.0	1.0	1.0	150	121	87	58	92
3	2.2	15	.95	.95	1.0	1.0	1.0	150	121	76	58	91
4	2.5	15	.95	.95	1.0	1.0	1.0	150	123	70	59	91
5	3.0	15	.95	.95	1.0	1.0	1.0	150	124	70	60	95
6	2.5	15	.95	.95	1.0	1.0	1.0	150	124	31	23	97
7	2.2	7.4	.95	.95	1.0	1.0	1.0	150	202	4.2	.95	73
8	9.4	.80	.95	.95	1.0	1.0	1.0	150	253	4.2	.95	63
9	15	.80	.95	.95	1.0	1.0	1.0	150	253	4.8	.95	63
10	15	.65	.95	.95	1.0	1.0	1.0	150	270	5.5	.95	58
11	16	.65	.95	.95	1.0	1.0	1.0	184	311	5.5	.95	58
12	16	.65	.95	.95	1.0	1.0	1.0	200	291	5.2	.95	59
13	17	.65	.95	.95	1.0	1.0	1.0	239	282	21	.95	62
14	17	.80	.95	.95	1.0	1.0	1.0	272	285	80	.95	62
15	17	.80	.95	.95	1.0	1.0	1.0	316	235	106	.95	61
16	17	.80	.95	.95	1.0	1.0	1.0	351	195	108	.95	60
17	17	.30	.95	.95	1.0	1.0	1.0	388	195	113	.95	61
18	17	.95	.95	.95	1.0	1.0	1.0	412	166	112	.95	65
19	17	.95	.95	.95	1.0	1.0	1.0	412	148	110	.95	61
20	17	.95	.95	.95	1.0	1.0	1.0	371	150	94	.95	60
21	17	.95	.95	.95	1.0	1.0	1.0	264	152	70	.95	62
22	17	.95	.95	.95	1.0	1.0	1.0	179	121	62	.95	59
23	17	.95	.95	.95	1.0	1.0	1.0	179	105	60	1.2	58
24	17	.95	.95	.95	1.0	1.0	1.0	177	105	59	1.2	60
25	17	.95	.95	.95	1.0	1.0	1.0	177	94	59	1.2	63
26	17	.95	.95	.95	1.0	1.0	1.0	179	86	63	1.2	64
27	17	.95	.95	.95	1.0	1.0	1.0	163	86	85	1.2	67
28	17	.95	.95	.95	1.0	1.0	1.0	150	86	71	1.4	68
29	17	.95	.95	.95	---	1.0	1.0	132	87	62	1.2	64
30	17	.95	.95	.95	---	1.0	94	121	87	63	1.2	60
31	16	---	.95	.95	---	1.0	---	121	---	60	63	---
TOTAL	412.4	117.15	29.45	29.45	28.0	31.0	123.0	6487	4979	1908.4	404.00	2052
MEAN	13.3	3.90	.95	.95	1.00	1.00	4.10	209	166	61.6	13.0	68.4
MAX	17	15	.95	.95	1.0	1.0	94	412	311	113	63	97
MIN	2.2	.65	.95	.95	1.0	1.0	1.0	121	86	4.2	.95	58
AC-FT	818	232	58	58	56	61	244	12870	9880	3790	801	4070

CAL YR 1986 TOTAL 16603.90 MEAN 45.5 MAX 210 MIN .40 AC-FT 32930
WTR YR 1987 TOTAL 16600.85 MEAN 45.5 MAX 412 MIN .65 AC-FT 32930

08217500 RIO GRANDE AT WAGONWHEEL GAP, CO

LOCATION.--Lat 37°46'01", long 106°49'51", in NW¼NE¼ sec.35, T.41 N., R.1 E., Mineral County, Hydrologic Unit 13010001, on right bank 250 ft upstream from private bridge, 0.4 mi upstream from Goose Creek, and 0.4 mi west of town of Wagonwheel Gap.

DRAINAGE AREA.--780 mi².

PERIOD OF RECORD.--May 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 8,431.26 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 14-23, Dec. 25 to Mar. 17, Mar. 17, 21-24, 27-28, 30-31. Records good except for estimated daily discharges, which are poor. Flow regulated by Santa Maria, Rio Grande, and Continental Reservoirs, combined capacity, 121,400 acre-ft. Diversions upstream from station for irrigation. Transmountain diversions to drainage area upstream from station from Colorado River basin (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--36 years, 543 ft³/s; 393,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,190 ft³/s, June 9, 1985, gage height, 6.10 ft; minimum daily, 46 ft³/s, Dec. 9, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,090 ft³/s at 0500 June 16, gage height, 5.21 ft; minimum daily, 90 ft³/s, Jan. 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	509	458	269	190	170	130	163	1800	1880	2500	1550	510
2	513	406	271	190	170	150	157	2150	2240	2450	1590	494
3	569	454	277	190	160	160	158	1940	2560	2410	1580	494
4	536	471	272	190	160	170	167	1710	2920	2320	1580	506
5	528	441	277	200	160	170	271	1620	2900	2240	1460	514
6	527	422	292	200	160	180	256	1620	2720	2190	1320	504
7	514	419	291	190	160	180	207	1620	2860	2010	1340	499
8	503	364	273	180	160	220	185	1920	3020	1890	1320	465
9	508	292	253	170	160	220	204	2100	3320	1870	1220	453
10	506	309	186	160	160	210	227	2110	3340	1830	1230	426
11	516	326	148	160	170	200	279	2130	3450	1780	1100	394
12	519	362	174	170	190	200	436	2500	3490	1730	744	390
13	500	332	185	180	200	200	352	2790	3690	1620	760	387
14	513	373	210	180	210	210	271	2970	3850	1420	767	418
15	481	368	220	180	210	200	332	3130	3870	1470	763	414
16	495	358	230	160	200	190	485	3090	3920	1550	785	405
17	491	357	230	140	180	190	617	2950	3800	1800	795	359
18	491	355	225	120	170	185	879	2790	3580	1810	810	364
19	503	373	225	110	160	156	1090	2640	3400	1740	884	451
20	534	355	220	110	140	134	933	2860	3280	1590	846	431
21	521	338	220	90	120	130	590	2960	3150	1550	826	359
22	480	349	220	100	120	130	609	2990	3050	1580	860	316
23	475	342	220	110	120	130	774	2890	2790	1570	943	306
24	465	311	220	130	130	130	1190	2790	2480	1570	1030	324
25	445	332	215	150	160	129	1340	2660	2300	1580	1090	316
26	411	345	213	160	160	125	1430	2590	2390	1520	928	426
27	415	303	210	160	130	121	1570	2570	2440	1490	795	451
28	419	312	210	160	130	120	1510	2330	2640	1430	693	367
29	420	314	205	150	---	122	1720	2150	2650	1350	665	316
30	417	325	200	150	---	140	1910	1790	2520	1370	635	316
31	423	---	200	160	---	145	---	1730	---	1440	593	---
TOTAL	15147	10916	7061	4890	4520	5077	20312	73890	90500	54670	31502	12375
MEAN	489	364	228	158	161	164	677	2384	3017	1764	1016	412
MAX	569	471	292	200	210	220	1910	3130	3920	2500	1590	514
MIN	411	292	148	90	120	120	157	1620	1880	1350	593	306
AC-FT	30040	21650	14010	9700	8970	10070	40290	146600	179500	108400	62480	24550

CAL YR 1986 TOTAL 326155 MEAN 894 MAX 4060 MIN 148 AC-FT 646900
WTR YR 1987 TOTAL 330860 MEAN 906 MAX 3920 MIN 90 AC-FT 656300

08218500 GOOSE CREEK AT WAGONWHEEL GAP, CO

LOCATION.--Lat 37°45'07", long 106°49'46", in SW¼SE¼ sec.35, T.41 N., R.1 E., Mineral County, Hydrologic Unit 13010001, on left bank 0.2 mi downstream from Pierce Creek, 1.0 mi upstream from mouth, 1.0 mi south of Wagonwheel Gap, and 8.8 mi southeast of Creede.

DRAINAGE AREA.--90 mi², approximately.

PERIOD OF RECORD.--June 1954 to current year.

REVISED RECORDS.--WSP 1712: 1955, 1956(M).

GAGE.--Water-stage recorder. Elevation of gage is 8,460 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 8-11, 24, Dec. 2-4, and Dec. 8 to Apr. 6. Records good except for estimated daily discharges, which are fair. Several small diversions upstream from station for irrigation. Lake Humphreys, capacity, 842 acre-ft, with a fixed spillway and no gates has slight effect on flow. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--33 years, 63.8 ft³/s; 46,220 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 879 ft³/s, Sept. 14, 1970, gage height, 4.52 ft, from recorded range in stage, from rating curve extended above 480 ft³/s; minimum daily, 4.5 ft³/s, Jan. 6, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1927 exceeded all other observed floods at this location, including those of October 1911 and June 18, 1949. Flood of October 1911 probably exceeded that of June 18,1949, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 30	2130	300	3.55	June 9	2230	727	4.30
May 16	2330	562	4.06	June 16	2200	*761	*4.35

Minimum daily discharge, 14 ft³/s, Jan. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	59	40	26	26	16	34	280	284	288	76	44
2	51	58	36	28	22	22	34	272	345	292	74	45
3	59	54	30	26	22	24	32	250	390	268	79	45
4	51	52	30	26	24	26	34	211	425	253	79	44
5	52	49	32	30	22	28	30	200	462	236	70	44
6	52	52	32	28	22	30	30	197	517	214	64	42
7	49	52	32	26	24	32	32	222	550	204	79	42
8	49	51	30	24	22	34	34	253	604	190	74	45
9	52	48	30	24	22	32	39	253	636	187	70	45
10	52	52	28	22	22	34	46	260	662	178	66	41
11	54	52	26	22	24	32	52	272	630	169	64	39
12	52	52	30	24	26	30	51	314	630	157	61	37
13	52	46	30	26	24	32	42	318	642	144	61	36
14	52	44	32	24	26	34	44	400	636	138	58	41
15	52	44	32	24	22	32	64	456	623	130	54	36
16	52	45	32	22	22	32	101	495	694	128	49	35
17	52	44	34	20	22	32	133	490	649	136	46	34
18	54	45	34	18	20	32	152	473	550	128	44	34
19	56	48	34	18	20	34	169	430	478	116	41	32
20	63	45	34	18	18	32	144	390	446	103	40	31
21	58	45	34	14	16	28	128	390	415	103	40	31
22	51	45	34	16	16	32	149	350	405	118	44	30
23	52	42	32	18	16	30	181	336	400	108	54	31
24	52	40	34	20	18	28	190	314	400	101	66	32
25	52	46	32	22	24	30	190	292	415	101	66	31
26	52	44	30	24	22	30	232	284	400	96	61	31
27	52	44	28	22	16	32	250	264	381	103	61	31
28	52	45	30	24	18	26	250	253	345	99	54	31
29	52	44	30	22	---	26	260	232	332	94	49	30
30	49	40	28	22	---	26	276	228	292	85	46	31
31	52	---	26	24	---	32	---	239	---	79	45	---
TOTAL	1628	1427	976	704	598	920	3403	9618	14638	4746	1835	1101
MEAN	52.5	47.6	31.5	22.7	21.4	29.7	113	310	488	153	59.2	36.7
MAX	63	59	40	30	26	34	276	495	694	292	79	45
MIN	48	40	26	14	16	16	30	197	284	79	40	30
AC-FT	3230	2830	1940	1400	1190	1820	6750	19080	29030	9410	3640	2180

CAL YR 1986 TOTAL 35806 MEAN 98.1 MAX 495 MIN 14 AC-FT 71020
WTR YR 1987 TOTAL 41594 MEAN 114 MAX 694 MIN 14 AC-FT 82500

08219500 SOUTH FORK RIO GRANDE AT SOUTH FORK, CO

LOCATION.--Lat 37°39'25", long 106°38'55", in SW¼NE¼ sec.3, T.39 N., R.3 E., Rio Grande County, Hydrologic Unit 13010001, on left bank near U.S. Highway 160, 700 ft downstream from Church Creek, 0.8 mi southwest of village of South Fork, and 1.4 mi upstream from mouth.

DRAINAGE AREA.--216 mi^2.

PERIOD OF RECORD.--August 1910 to September 1922, May 1936 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 898: 1911(M). WSP 1312: 1912, 1944(M). WSP 1632: 1956-58(P).

GAGE.--Water-stage recorder. Datum of gage is 8,221.79 ft above National Geodetic Vertical Datum of 1929. Aug. 9, 1910, to Mar. 28, 1915, nonrecording gage, and Mar. 29, 1915, to Sept. 30, 1922, water-stage recorder, at bridges 1 mi downstream at different datums.

REMARKS.--Estmated daily discharges: Dec. 9 to Mar. 22, and Mar. 29-30. Records good except for estimated daily discharges, which are fair. Transmountain diversions from Colorado River basin to drainage area upstream from station through Treasure Pass ditch. Natural flow of stream affected by a few small diversions for irrigation, slight regulation by Beaver Creek Reservoir, capacity, 4,760 acre-ft, and several smaller storage reservoirs.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--63 years (water years 1911-22, 1937-87), 216 ft^3/s; 156,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,000 ft^3/s, Oct. 5, 1911, gage height, 9.7 ft, from floodmarks, present site and datum, from rating curve extended above 1,500 ft^3/s; minimum daily, 10 ft^3/s, Jan. 6, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 5, 1911, exceeded all other observed floods at this location since at least 1873. Flood of June 29, 1927, reached a stage about 1 ft lower than that of Oct. 5, 1911, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 1	2230	1,060	4.33	June 9	2330	*2,050	*5.60
May 16	2300	1,930	5.50				

Minimum daily discharge, 46 ft^3/s, Jan. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	177	116	86	66	52	87	903	887	486	135	76
2	139	178	117	86	60	58	91	952	1060	451	132	75
3	173	174	120	82	60	62	97	786	1210	418	169	76
4	164	172	120	82	62	64	102	673	1380	384	153	72
5	160	167	119	90	60	68	96	636	1470	353	133	72
6	161	174	112	86	58	70	94	628	1550	328	125	73
7	162	170	108	76	60	72	97	671	1640	282	131	74
8	175	161	97	66	58	78	103	758	1690	260	124	81
9	183	143	94	66	58	76	114	773	1840	239	107	76
10	183	155	74	60	58	78	134	780	1780	211	113	70
11	189	152	72	60	60	72	162	881	1630	201	108	67
12	183	151	84	64	64	70	169	1040	1510	189	99	65
13	177	148	84	66	62	72	153	1050	1450	177	105	63
14	177	146	92	64	64	78	152	1390	1500	186	103	68
15	185	144	92	64	62	74	204	1540	1550	196	95	67
16	194	140	92	60	64	74	285	1670	1580	196	89	64
17	190	137	96	52	60	74	382	1720	1330	200	86	61
18	190	140	94	50	58	80	450	1720	1160	201	84	62
19	197	169	92	52	60	88	533	1600	1070	179	81	60
20	219	162	92	52	56	86	485	1400	990	171	79	64
21	217	156	94	46	52	80	403	1300	914	170	79	66
22	201	154	94	50	54	86	450	1160	841	181	80	64
23	189	149	90	52	52	83	562	1080	775	169	88	60
24	186	139	94	56	56	80	605	1020	758	160	132	58
25	182	147	92	60	64	80	635	952	735	167	155	58
26	176	139	88	66	62	78	740	896	702	157	150	57
27	167	128	86	62	52	77	747	807	691	157	138	56
28	152	133	88	64	54	78	770	742	614	164	119	57
29	150	134	88	64	---	80	783	643	568	160	109	56
30	150	131	86	62	---	78	856	642	522	151	101	53
31	153	---	82	64	---	87	---	715	---	140	89	---
TOTAL	5449	4570	2949	2010	1656	2333	10571	31528	35397	7084	3491	1971
MEAN	176	152	95.1	64.8	59.1	75.3	352	1017	1180	229	113	65.7
MAX	219	178	120	90	66	88	856	1720	1840	486	169	81
MIN	125	128	72	46	52	52	87	628	522	140	79	53
AC-FT	10810	9060	5850	3990	3280	4630	20970	62540	70210	14050	6920	3910

CAL YR 1986 TOTAL 129389 MEAN 354 MAX 2270 MIN 60 AC-FT 256600
WTR YR 1987 TOTAL 109009 MEAN 299 MAX 1840 MIN 46 AC-FT 216200

08220000 RIO GRANDE NEAR DEL NORTE, CO

LOCATION.--Lat 37°41'22", long 106°27'38", in NW¼ sec.29, T.40 N., R.5 E., Rio Grande County, Hydrologic Unit 13010001, on right bank 20 ft downstream from county highway bridge, 6.0 mi west of Del Norte, and 18 mi upstream from Pinos Creek.

DRAINAGE AREA.--1,320 mi^2, approximately.

PERIOD OF RECORD.--June 1889 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 763: Drainage area. WSP 1312: 1889, 1901, 1913-14.

GAGE.--Water-stage recorder. Datum of gage is 7,980.25 ft above National Geodetic Vertical Datum of 1929. Prior to May 16, 1908, nonrecording gage at site 4 mi downstream at different datum. May 16, 1908, to Nov. 8, 1910, nonrecording gages on bridge at present site and datum.

REMARKS.--Estimated daily discharges: Nov. 8, 9, Nov. 22 to Feb. 17, and Feb. 21-23. Records good except for estimated daily discharges, which are fair. Small diversions upstream from station for irrigation. Flow regulated by Beaver Creek Reservoir since 1910, Santa Maria Reservoir since 1912, Rio Grande Reservoir since 1912, and Continental Reservoir since 1925, combined capacity, 126,100 acre-ft, and by several smaller reservoirs. Transmountain diversions to drainage area upstream from station from Colorado River basin (see elsewhere in this report). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--98 years, 913 ft^3/s; 661,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,000 ft^3/s, Oct. 5, 1911, gage height, 6.80 ft, from rating curve extended above 12,900 ft^3/s; minimum daily, 69 ft^3/s, Aug. 21, 1902.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1873, that of Oct. 5, 1911, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,490 ft^3/s at 0930 June 16, gage height, 5.22 ft; minimum daily, 240 ft^3/s, Jan. 21,22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	681	830	490	310	320	300	362	3480	3320	3560	1760	642
2	681	779	480	320	310	315	346	4030	3880	3480	1840	598
3	762	796	480	310	300	315	373	3520	4600	3320	1870	605
4	779	830	490	310	310	305	395	3020	5420	3170	1890	605
5	737	788	490	330	300	315	462	2790	5670	3020	1710	620
6	737	762	490	320	300	320	488	2790	5510	2910	1510	598
7	737	779	480	300	310	346	443	2730	5810	2720	1520	598
8	737	628	430	290	300	390	431	3270	6210	2410	1550	583
9	754	605	380	280	300	413	500	3560	6770	2390	1380	562
10	754	635	290	260	300	514	569	3600	6710	2270	1410	541
11	779	689	260	270	310	431	650	3740	6710	2240	1320	500
12	796	705	310	290	330	395	804	4540	6540	2160	902	474
13	770	689	320	300	320	346	658	4940	6660	2060	875	488
14	813	658	350	300	330	384	562	5720	6920	1830	902	494
15	796	650	360	300	320	362	697	6520	7000	1860	893	500
16	813	642	350	280	330	455	1010	6920	7150	1970	893	500
17	813	642	370	260	310	437	1300	6470	6710	2130	893	481
18	822	642	360	250	295	351	1640	6110	6180	2270	884	449
19	839	697	350	250	286	368	1980	5740	5790	2190	929	494
20	938	681	350	250	272	351	1890	5580	5440	1950	947	555
21	929	642	350	240	250	310	1370	5630	5190	1870	848	474
22	866	600	350	240	242	401	1400	5400	4960	1900	920	431
23	822	540	330	250	246	373	1700	5140	4670	1870	992	395
24	804	500	350	270	272	395	2190	4890	3900	1860	1080	401
25	788	520	340	280	320	330	2430	4540	3840	1860	1290	407
26	745	500	330	300	320	320	2660	4320	3580	1810	1130	437
27	729	480	320	290	272	325	3000	4160	3740	1770	992	555
28	713	490	330	310	286	335	2930	3780	3900	1730	866	488
29	713	490	330	300	---	286	3100	3420	3880	1640	822	407
30	705	500	320	280	---	259	3580	2970	3660	1640	788	395
31	721	---	310	310	---	413	---	2910	---	1650	737	---
TOTAL	24073	19389	11540	8850	8361	11160	39920	136230	160320	69510	36343	15277
MEAN	777	646	372	285	299	360	1331	4395	5344	2242	1172	509
MAX	938	830	490	330	330	514	3580	6920	7150	3560	1890	642
MIN	681	480	260	240	242	259	346	2730	3320	1640	737	395
AC-FT	47750	38460	22890	17550	16580	22140	79180	270200	318000	137900	72090	30300

CAL YR 1986 TOTAL 520775 MEAN 1427 MAX 7020 MIN 227 AC-FT 1033000
WTR YR 1987 TOTAL 540973 MEAN 1482 MAX 7150 MIN 240 AC-FT 1073000

08226600 NOLAND GULCH TRIBUTARY RESERVOIR INFLOW NEAR VILLA GROVE, CO

LOCATION.--Lat 38°12'34", long 105°57'40", in NW¼SE¼ sec.27, T.46 N., R.9 E., Saguache County, Hydrologic Unit 13010003, on left bank at inflow site to a small channel reservoir 500 ft upstream from dam, 1.2 mi west along Bureau of Land Management road exiting U.S. Highway 285, and 2.7 mi south of Villa Grove.

DRAINAGE AREA.--0.08 mi^2.

PERIOD OF RECORD.--June 1979 to current year (seasonal record only).

GAGE.--Water-stage recorder and Parshall Flume. Elevation of gage is 8,000 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. One recording and two nonrecording rain gages are in basin upstream. This station is designed to evaluate rainfall runoff from a small drainage area into a small channel reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2.1 ft^3/s, Sept. 30, 1982, gage height, 3.65 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--No flow for current year.

08227400 TRACY PIT RESERVOIR INFLOW NEAR SAGUACHE, CO

LOCATION.--Lat 38°02'44", long 106°13'06", in SE¼SE¼ sec.20, T.44 N., R.7 E., Saguache County, Hydrologic Unit 13010004, on left bank 0.5 mi upstream from mouth at North Tracy Canyon, 5.1 mi southwest of Saguache, and 5.4 mi northwest of U.S. Highway 285 at Swede Corners.

DRAINAGE AREA.--0.05 mi^2.

PERIOD OF RECORD.--June 1979 to current year (seasonal record only).

GAGE.--Water-stage recorder and Parshall Flume. Elevation of gage is 8,190 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. One recording and two nonrecording rain gages in basin upstream. This station is designed to evaluate rainfall-runoff from a small drainage area into a small channel reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4.3 ft^3/s, Aug. 25, 1982, gage height, 4.05 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--No flow for current year.

08238350 YELLOW WARBLER RESERVOIR INFLOW NEAR ANTONITO, CO

LOCATION.--Lat 37°06'00", long 106°06'44", in NE¼SE¼ sec.17, T.33 N., R.8 E., Conejos County, Hydrologic Unit 13010002, on left bank, 400 ft upstream from Yellow Warbler Dam, 0.4 mi south of the geologic basin known as The Poso, and 6.0 mi west of Antonito.

DRAINAGE AREA.--0.18 mi^2.

PERIOD OF RECORD.--June 1979 to current year (seasonal record only).

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 8,380 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. One recording and three nonrecording rain gages are in basin upstream. This station is designed to evaluate rainfall-runoff from a small drainage area into a small channel reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17 ft^3/s, Aug. 16, 1982, gage height, 4.97 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 0.12 ft^3/s at 1515 Aug. 23, gage height, unknown; mean flow for the day, 0.0 ft^3/s; no mean daily flows for season of record.

08238380 TURKEY RESERVOIR INFLOW NEAR CONEJOS, CO

LOCATION.--Lat 37°08'16", long 106°06'41", in SE¼SE¼ sec,32, T.34 N., R.8 E., Conejos County, Hydrologic Unit 13010002, on left bank 300 ft upstream from Turkey Dam, 0.4 mi upstream from mouth at the geologic basin known as The Poso, and 6.2 mi northwest of Conejos.

DRAINAGE AREA.--0.24 mi².

PERIOD OF RECORD.--June 1979 to current year (seasonal record only).

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 8,280 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. One recording and three nonrecording rain gages in basin upstream. This station is designed to *evaluate rainfall-runoff from small drainage area into a small* channel reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7.5 ft³/s, Aug. 11, 1981, gage height, 4.16 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--No flow during the period of record this year.

08238400 BOBOLINK RESERVOIR NEAR CONEJOS, CO

LOCATION.--Lat 37°09'10", long 106°10'18", in SW¼SE¼ sec.26, T.34 N., R.7 E., Conejos County, Hydrologic Unit 13010002, on top of earthfill dam near center, 0.7 mi southeast of Flat Top Mountain, 5.3 mi north of Los Mogotes Peaks and 9.4 mi northwest of Conejos.

DRAINAGE AREA.--0.23 mi².

PERIOD OF RECORD.--June 1979 to current year (seasonal record only).

GAGE.--Water-stage recorder. Elevation of gage is 8,800 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated instantaneous *contents. Records good. Reservoir is formed* by an earthfill dam. Storage occurs intermittenly from storm runoff. Maximum storage is 1.0 acre-ft, at a spillway gage height of 7.1 ft. No contents occur at a gage height of 3.42 ft. This dam forms a small channel reservoir for controlling heavy runoff and to help control sedimentation. There is one recording and three nonrecording rain gages in the basin upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2.4 acre-ft, Sept. 9, 1982, gage height, 9.13 ft; no contents most of time.

EXTREMES FOR CURRENT YEAR.--No contents during current year.

08240000 RIO GRANDE ABOVE MOUTH OF TRINCHERA CREEK, NEAR LASAUSES, CO

LOCATION.--Lat 37°18'58", long 105°44'32", in sec.35, T.36 N., R.11 E., Conejos County, Hydrologic Unit 13010002, on right bank 0.2 mi upstream from Trinchera Creek, 3.2 mi north of Lasauses, and 13 mi southeast of Alamosa.

DRAINAGE AREA.--5,740 mi^2, approximately, includes 2,940 mi^2 in closed basin in northern part of San Luis Valley, Co.

PERIOD OF RECORD.--May 1936 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,500 ft, estimated from nearby level lines.

REMARKS.--Estimated daily discharges: Dec. 30 to Mar. 3, and July. 24-27. Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--51 years, 273 ft^3/s; 197,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,470 ft^3/s, June 21, 1949, gage height, 9.50 ft, from rating curve extended above 3,600 ft^3/s; minimum daily, 0.4 ft^3/s, July 4, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,490 ft^3/s at 0700 May 19, gage height, 8.94 ft; minimum daily, 35 ft^3/s, Sept. 28, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	246	588	782	560	295	425	728	3120	1550	1520	72	72
2	261	748	782	595	300	435	769	3260	1310	1420	68	80
3	244	955	724	550	295	450	752	3460	1310	1290	68	67
4	232	960	700	530	295	494	756	3540	1430	1190	71	56
5	268	980	700	535	300	488	796	3630	1650	1020	71	54
6	295	1000	736	380	300	503	792	3510	1980	864	83	54
7	281	980	744	290	310	516	859	3210	2290	672	80	55
8	295	955	748	295	310	542	868	3000	2520	497	74	55
9	304	895	696	310	310	584	850	2870	2660	376	69	53
10	310	792	595	315	310	613	882	2870	2820	290	68	49
11	310	769	385	315	315	656	940	3010	3040	234	71	48
12	347	782	332	315	430	720	1020	3090	3300	209	81	48
13	396	886	379	310	525	792	1120	3090	3460	190	79	47
14	432	864	457	305	525	782	1230	3140	3500	167	72	44
15	454	846	549	300	530	810	1120	3360	3540	149	66	44
16	491	859	566	315	535	823	1080	3590	3640	137	62	43
17	506	854	552	320	540	818	1210	3920	3720	129	58	45
18	526	828	542	330	435	854	1430	4360	3830	142	56	44
19	535	854	588	325	360	922	1620	4480	3940	158	53	42
20	573	895	602	325	420	940	1800	4410	3850	164	49	43
21	660	940	580	330	450	931	2020	4260	3630	142	44	42
22	769	918	542	330	460	850	2190	4120	3350	125	43	41
23	774	895	516	325	360	841	2200	3990	3110	114	46	39
24	736	886	491	320	370	782	2100	3890	2860	105	50	39
25	704	832	469	310	380	805	2170	3730	2620	95	56	38
26	684	818	469	300	385	787	2340	3530	2170	90	65	37
27	660	823	478	295	410	752	2560	3250	1800	85	76	36
28	629	832	454	295	420	708	2760	2940	1580	83	87	35
29	613	782	447	290	---	640	2900	2650	1540	81	85	37
30	595	774	435	285	---	668	3050	2360	1530	79	82	35
31	577	---	455	295	---	668	---	1970	---	76	75	---
TOTAL	14707	25790	17495	10895	10875	21599	44912	105610	79530	11893	2080	1422
MEAN	474	860	564	351	388	697	1497	3407	2651	384	67.1	47.4
MAX	774	1000	782	595	540	940	3050	4480	3940	1520	87	80
MIN	232	588	332	285	295	425	728	1970	1310	76	43	35
AC-FT	29170	51150	34700	21610	21570	42840	89080	209500	157700	23590	4130	2820

CAL YR 1986 TOTAL 266456 MEAN 730 MAX 4010 MIN 82 AC-FT 528500
WTR YR 1987 TOTAL 346808 MEAN 950 MAX 4480 MIN 35 AC-FT 687900

08244500 PLATORO RESERVOIR AT PLATORO, CO

LOCATION.--Lat 37°21'07", long 106°32'38", Conejos County, Hydrologic Unit 13010005, on right bank in valvehouse, 400 ft downstream from Platoro Dam on Conejos River and 0.7 mi west of Platoro.

DRAINAGE AREA.--40 mi², approximately.

REVISED RECORDS.--WDR-CO-85-1: 1984.

PERIOD OF RECORD.--November 1951 to current year.

REVISED RECORDS.--WDR-CO-85-1: 1984.

GAGE.--Nonrecording gage. Datum of gage is 9,911.5 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations NGVD. Prior to June 9, 1955, nonrecording gage at present site and datum. June 9, 1955 to Sept. 30, 1959, water-stage recorder in gate chamber at dam for elevations above 9,921.0 ft, at same datum.

REMARKS.--Reservoir is formed by an earth and rockfill dam and dikes. Dam completed Dec. 9, 1951; storage began Nov. 7, 1951. Capacity of reservoir (based on revised capacity table put in use Jan. 1, 1975), 59,570 acre-ft, between elevations 9,911.5 ft, sill of trashrack at outlet, and 10,034.0 ft, crest of spillway. No dead storage. Reservoir is used for irrigation and flood control. Figures given are usable contents.

COOPERATION.--Records provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 61,420 acre-ft, June 9, 11, 1958, elevation, 10,035.5 ft; no contents for long periods in 1952-56.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 53,780 acre-ft, July 2, elevation, 10,028.8 ft; minimum contents, 34,550 acre-ft, May 15, elevation, 10,004.9 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 1000, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	10,026.0	52,140	-
Oct. 31	10,026.0	52,140	0
Nov. 30	10,025.9	52,050	-90
Dec. 31	10,024.2	50,510	-1,540
CAL YR 1986			+540
Jan. 31	10,022.5	48,990	-1,520
Feb. 28	10,021.0	47,670	-1,320
Mar. 31	10,020.5	47,230	-440
Apr. 30	10,012.4	40,400	-6,830
May 31	10,008.8	37,540	-2,860
June 30	10,027.5	53,510	+15,970
July 31	10,020.2	46,970	-6,540
Aug. 31	10,017.2	44,390	-2,580
Sept. 30	10,016.7	43,960	-430
WTR YR 1987			-8,180

08245000 CONEJOS RIVER BELOW PLATORO RESERVOIR, CO

LOCATION.--Lat 37°21'18", long 106°32'37", Conejos County, Hydrologic Unit 13010005, on left bank 1,100 ft downstream from valvehouse for Platoro Reservoir and 0.7 mi northwest of Platoro.

DRAINAGE AREA.--40 mi^2, approximately.

PERIOD OF RECORD.--May 1952 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 9,866.60 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--*Estimated daily discharges:* Nov. 25 to Apr. 10. Records good. No diversion upstream from station. Flow completely regulated by Platoro Reservoir (station 08244500). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--35 years, 93.7 ft^3/s; 67,890 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,160 ft^3/s, Nov. 1, 1957, gage height, 4.02 ft; maximum gage height, 4.29 ft, June 15, 1958; no flow Oct. 16-20, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 5, 1911, is the greatest since at least 1854, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 840 ft^3/s at 1430 May 8, gage height, 3.41 ft; minimum daily, 8.5 ft^3/s, Apr. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	30	49	36	36	36	15	9.7	231	231	202	29
2	52	54	49	36	36	36	15	9.3	356	255	188	29
3	52	81	49	36	36	36	15	105	465	261	185	29
4	52	79	33	36	36	36	15	454	495	261	172	29
5	68	45	33	36	36	36	15	696	495	246	120	29
6	79	28	33	36	36	36	15	784	356	208	134	28
7	79	28	33	36	36	22	15	808	285	185	148	28
8	79	28	33	36	36	15	31	574	183	172	124	29
9	79	28	33	36	36	15	61	396	49	185	114	29
10	69	28	33	36	36	15	79	396	13	192	86	27
11	68	28	33	36	36	15	120	392	13	192	72	26
12	74	28	33	36	36	15	120	392	13	190	73	22
13	74	22	33	36	36	15	182	392	13	198	66	18
14	74	18	33	36	36	15	222	420	13	234	51	18
15	74	18	33	36	36	15	222	307	14	258	46	18
16	74	18	33	36	36	15	222	98	184	261	38	15
17	85	19	33	36	36	15	261	12	520	261	33	12
18	92	19	33	36	36	15	279	12	612	258	35	16
19	66	19	33	36	36	15	279	12	460	255	35	19
20	47	19	35	36	36	15	316	194	384	273	33	19
21	55	29	36	36	36	26	372	348	475	306	47	16
22	70	55	36	36	36	31	416	392	546	299	57	13
23	69	55	36	36	36	31	412	388	485	282	57	13
24	50	27	36	36	36	31	412	388	485	270	57	10
25	43	13	36	36	36	15	412	388	485	249	70	19
26	43	13	36	36	36	15	412	384	485	231	82	16
27	43	37	36	36	36	15	192	270	436	212	82	16
28	42	42	36	36	36	15	8.5	222	412	208	81	16
29	42	49	36	36	---	15	9.3	182	368	208	81	16
30	42	49	36	36	---	15	9.3	160	255	195	66	16
31	34	---	36	36	---	15	---	160	---	195	40	---
TOTAL	1922	1006	1106	1116	1008	657	5154.1	9845.0	9586	7231	2675	620
MEAN	62.0	33.5	35.7	36.0	36.0	21.2	172	318	320	233	86.3	20.7
MAX	92	81	49	36	36	36	416	808	612	306	202	29
MIN	34	13	33	36	36	15	8.5	9.3	13	172	33	10
AC-FT	3810	2000	2190	2210	2000	1300	10220	19530	19010	14340	5310	1230

CAL YR 1986 TOTAL 49047.5 MEAN 134 MAX 784 MIN 6.2 AC-FT 97290
WTR YR 1987 TOTAL 41926.1 MEAN 115 MAX 808 MIN 8.5 AC-FT 83160

08246500 CONEJOS RIVER NEAR MOGOTE, CO

LOCATION.--Lat 37°03'14", long 106°11'13", in SE¼SE¼ sec.34, T.33 N., R.7 E., Conejos County, Hydrologic Unit 13010005, on right bank 25 ft upstream from bridge on State Highway 17, 0.4 mi downstream from Fox Creek, 5.3 mi west of Mogote, and 10 mi west of Antonito.

DRAINAGE AREA.--282 mi^2.

PERIOD OF RECORD.--April 1903 to October 1905, October 1911 to current year. Monthly discharge only for some periods, published in WSP 1312. Records for March 1900 at site 5.5 mi upstream and May 1905 to September 1911 (some missing periods most years) at site 3.2 mi upstream not equivalent to present site due to inflow.

REVISED RECORDS.--WSP 898: 1911(M). WSP 1312: 1903-5, 1913. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 8,271.54 ft, Colorado State Highway datum. Apr. 17, 1903, to Oct. 31, 1905, nonrecording gage 500 ft downstream at different datum. Oct. 5, 1911, to early 1915, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Dec. 10 to Feb. 9, Feb. 18-24, Feb. 27 to Mar. 7, Mar. 13-15, 17-18, and June 26. Records good except for estimated daily discharges, which are fair. Diversions for irrigation of about 500 acres of hay meadows upstream from station. Some regulation by Platoro Reservoir (station 08244500). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--78 years, 337 ft^3/s; 244,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,000 ft^3/s, Oct. 5, 1911, gage height, 8.50 ft, from floodmarks, present site and datum, from rating curve extended above 3,100 ft^3/s; minimum daily determined, 10 ft^3/s, July 18, 1904.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1854, that of Oct. 5, 1911, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,010 ft^3/s at 0400 June 10, gage height, 4.28 ft; minimum daily, 68 ft^3/s, Sept. 24, 25, 29, and 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	215	201	154	100	100	98	96	970	880	741	282	103
2	229	208	151	100	100	98	103	1060	1210	710	278	96
3	240	229	151	100	100	100	106	830	1480	660	288	98
4	229	232	142	100	100	110	116	845	1720	624	292	93
5	229	215	142	110	100	115	111	1190	1780	584	246	93
6	243	187	142	105	98	125	109	1260	1770	520	215	96
7	250	174	139	105	98	135	103	1390	1650	480	260	96
8	254	167	131	90	100	122	103	1530	1800	436	236	93
9	250	151	136	88	100	119	125	1200	1800	412	194	91
10	250	154	109	88	103	111	154	1170	1770	412	190	91
11	246	154	110	88	101	106	218	1250	1560	400	167	88
12	246	161	110	92	101	96	260	1320	1390	392	154	86
13	246	151	111	92	101	98	246	1470	1300	376	161	82
14	246	145	106	94	103	100	328	1540	1290	388	148	82
15	257	142	103	96	98	100	372	1690	1410	432	131	84
16	264	142	103	88	103	101	460	1480	1530	432	119	82
17	260	136	105	84	103	100	570	1480	1770	436	109	79
18	268	139	116	80	98	98	695	1520	1780	448	103	77
19	268	154	110	84	96	103	755	1440	1630	404	101	75
20	257	148	105	84	94	101	760	1240	1340	384	98	70
21	240	145	105	82	92	101	720	1370	1270	416	98	70
22	229	158	105	82	94	131	820	1320	1400	432	106	70
23	240	170	100	86	94	122	930	1320	1260	404	119	70
24	229	164	105	88	96	119	980	1240	1240	380	128	68
25	204	151	105	92	98	109	970	1120	1240	364	142	68
26	198	148	105	94	98	96	1040	1060	1200	332	145	70
27	190	142	101	92	96	98	1140	960	1180	320	139	70
28	190	158	105	98	96	96	860	820	1110	306	136	70
29	187	164	100	100	---	91	870	750	1000	299	134	68
30	184	167	100	100	---	91	930	685	890	299	131	68
31	184	---	96	100	---	96	---	740	---	274	116	---
TOTAL	7222	4957	3603	2882	2761	3286	15050	37260	42650	13497	5166	2447
MEAN	233	165	116	93.0	98.6	106	502	1202	1422	435	167	81.6
MAX	268	232	154	110	103	135	1140	1690	1800	741	292	103
MIN	184	136	96	80	92	91	96	685	880	274	98	68
AC-FT	14320	9830	7150	5720	5480	6520	29850	73910	84600	26770	10250	4850

CAL YR 1986 TOTAL 173161 MEAN 474 MAX 2490 MIN 76 AC-FT 343500
WTR YR 1987 TOTAL 140781 MEAN 386 MAX 1800 MIN 68 AC-FT 279200

08247500 SAN ANTONIO RIVER AT ORTIZ, CO

LOCATION.--Lat 36°59'35", long 106°02'17", in NE¼SE¼ sec.24, T.32 N., R.8 E., Rio Arriba County, New Mexico, Hydrologic Unit 13010005, on left bank 800 ft south of Colorado-New Mexico State line, 0.4 mi southeast of Ortiz, and 0.4 mi upstream from Los Pinos River.

DRAINAGE AREA.--110 mi², approximately.

PERIOD OF RECORD.--April 1919 to October 1920, October 1924 to current year (no winter records prior to 1941). Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 1732: 1951. WSP 1923: 1927 (monthly runoff).

GAGE.--Water-stage recorder. Elevation of gage is 7,970 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Apr. 7, 1926, nonrecording gage at various locations near present site, at different datums. Apr. 7, 1926, to June 24, 1954, water-stage recorder at site 200 ft downstream, at present datum.

REMARKS.--Estimated daily discharges: Nov. 10-15, and Nov. 23 to Apr. 1. Records good except for estimated daily discharges, which are fair. A few small diversions upstream from station for irrigation. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--47 years (1940-87), 26.3 ft³/s; 19,050 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,750 ft³/s, Apr. 15, 1937, gage height, 5.38 ft, from rating curve extended above 1,100 ft³/s; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 5, 1911, is the greatest since at least 1854, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 330 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 16	2215	*1,170	*5.23	No other peak greater than base discharge.			

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	14	8.0	2.0	6.5	4.0	20	464	23	2.2	.00	1.0
2	8.0	20	6.5	2.0	6.5	5.0	19	500	20	1.2	.00	.60
3	8.4	19	6.5	2.0	6.5	7.0	26	268	18	.50	.00	.50
4	12	19	7.0	2.0	6.5	10	27	195	19	.20	.00	.75
5	10	17	7.0	3.0	6.5	15	24	180	19	.05	.00	1.6
6	8.4	15	7.0	3.0	5.5	20	22	186	16	.00	.00	1.0
7	8.4	15	7.0	2.5	5.5	30	15	216	15	.00	.00	1.4
8	7.5	13	6.0	1.5	6.5	37	22	254	17	.00	.00	1.4
9	7.5	11	5.0	1.5	6.0	35	50	250	18	.00	.00	1.4
10	6.6	12	3.5	1.5	6.5	36	144	238	15	.00	.00	1.0
11	7.5	12	3.5	1.5	7.5	30	343	216	12	.00	.00	.75
12	10	13	4.0	2.5	8.5	28	410	204	11	.00	.00	.60
13	11	13	4.0	3.0	9.0	30	184	205	10	.00	.00	.50
14	11	14	4.0	3.5	9.0	32	116	184	9.8	.00	.00	.40
15	12	13	4.0	4.0	8.5	32	256	168	9.3	.00	.00	.20
16	14	15	4.5	2.0	8.5	27	563	160	8.4	.00	.00	.10
17	13	15	4.5	1.0	8.5	25	598	144	7.5	.00	.00	.10
18	13	14	5.0	1.0	8.5	23	520	126	5.4	.00	.00	.30
19	13	21	4.5	1.0	6.5	28	470	111	4.6	.00	.00	.30
20	16	18	3.5	1.0	4.5	22	365	98	4.0	.00	.00	.10
21	22	17	3.5	1.0	3.5	20	232	81	2.8	.00	.00	.00
22	19	17	3.5	1.0	4.0	23	248	70	2.2	.00	.00	.00
23	18	13	2.5	2.0	4.0	22	300	62	2.0	.00	.00	.00
24	17	11	2.5	2.5	5.0	18	327	65	1.6	.00	.00	.00
25	15	10	2.5	3.0	6.5	19	351	56	.90	.00	.00	.00
26	14	9.5	2.5	4.0	5.5	20	328	47	.60	.00	.00	.00
27	13	9.0	2.0	3.5	4.5	21	399	40	.75	.00	.05	.00
28	13	8.5	2.5	5.0	4.0	19	382	37	.90	.00	.60	.00
29	12	8.5	2.0	6.0	---	17	434	33	1.0	.00	.75	.00
30	12	9.0	2.0	6.0	---	16	434	29	1.6	.00	.50	.00
31	11	---	1.5	6.0	---	19	---	25	---	.00	1.4	---
TOTAL	372.1	415.5	132.0	81.5	178.5	690.0	7629	4913	276.35	4.15	3.30	14.00
MEAN	12.0	13.8	4.26	2.63	6.37	22.3	254	158	9.21	.13	.11	.47
MAX	22	21	8.0	6.0	9.0	37	598	500	23	2.2	1.4	1.6
MIN	6.6	8.5	1.5	1.0	3.5	4.0	15	25	.60	.00	.00	.00
AC-FT	738	824	262	162	354	1370	15130	9740	548	8.2	6.5	28

CAL YR 1986 TOTAL 12800.91 MEAN 35.1 MAX 524 MIN .00 AC-FT 25390
WTR YR 1987 TOTAL 14709.40 MEAN 40.3 MAX 598 MIN .00 AC-FT 29180

08248000 LOS PINOS RIVER NEAR ORTIZ, CO

LOCATION.--Lat 36°58'56", long 106°04'23", on line between secs.26 and 27, T.32 N., R.8 E., Rio Arriba County, New Mexico, Hydrologic Unit 13010005, on left bank 0.9 mi south of Colorado-New Mexico State line, 2.1 mi southwest of Ortiz, and 2.9 mi upstream from mouth.

DRAINAGE AREA.--167 mi^2.

PERIOD OF RECORD.--January 1915 to December 1920, October 1924 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Elevation of gage is 8,040 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Apr. 15, 1955, at site 350 ft upstream at datum 2.52 ft, higher.

REMARKS.--Estimated daily discharges: Nov. 8-15, Nov. 22 to Mar. 20, and Mar. 26-31. Records good except for estimated daily discharges, which are fair. Diversions upstream from station for irrigation. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--68 years, 121 ft^3/s; 87,660 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,160 ft^3/s, May 12, 1941, gage height, 5.77 ft, site and datum then in use, from rating curve extended above 1,600 ft^3/s; minimum observed, 4.0, ft^3/s Dec. 17, 1945 (discharge measurement) but may have been less during periods of no gage-height record.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 5, 1911, is the greatest since at least 1854, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 1	2330	*1,430	*5.47	May 16	2300	1,130	4.95

Minimum daily discharge, 13 ft^3/s, Sept. 24, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	101	40	27	33	26	43	988	320	111	22	18
2	111	111	37	28	34	28	48	1020	368	99	23	18
3	133	104	38	27	33	31	51	712	395	87	26	20
4	109	97	40	27	33	33	59	560	425	77	29	18
5	108	89	42	32	32	36	50	532	406	71	24	18
6	113	89	45	31	29	38	46	555	406	64	24	18
7	121	77	44	30	28	40	42	686	413	58	26	19
8	123	77	40	23	29	44	44	790	482	51	33	18
9	117	70	36	21	29	43	55	830	524	46	26	18
10	111	70	27	21	30	44	71	800	486	45	23	18
11	133	72	29	23	31	41	99	850	432	42	23	16
12	123	72	32	27	31	40	113	865	392	40	22	16
13	115	68	32	28	32	42	82	934	368	39	25	16
14	106	68	34	29	32	45	73	875	365	36	23	16
15	109	70	37	30	30	46	106	870	375	33	20	18
16	117	74	38	24	31	44	185	928	375	32	18	16
17	115	67	38	20	30	43	256	946	346	31	18	16
18	115	63	41	18	30	40	308	880	299	34	16	16
19	123	78	39	20	28	47	352	785	270	29	16	15
20	131	73	32	20	27	40	346	668	245	27	16	14
21	129	67	35	19	25	37	311	618	225	27	16	15
22	109	65	34	19	26	40	333	543	200	26	18	14
23	108	56	28	22	26	41	425	528	185	25	22	15
24	104	52	31	25	28	38	512	512	171	24	25	13
25	99	50	30	28	30	40	547	425	158	24	28	14
26	94	48	30	30	28	40	618	395	147	23	30	15
27	91	45	28	29	27	40	748	352	149	23	26	15
28	87	43	31	31	26	40	850	330	160	26	25	14
29	86	42	28	32	---	39	892	302	160	28	24	14
30	82	44	26	31	---	38	910	284	125	26	22	13
31	84	---	25	33	---	44	---	287	---	23	20	---
TOTAL	3392	2102	1067	805	828	1228	8575	20650	9372	1327	709	484
MEAN	109	70.1	34.4	26.0	29.6	39.6	286	666	312	42.8	22.9	16.1
MAX	133	111	45	33	34	47	910	1020	524	111	33	20
MIN	82	42	25	18	25	26	42	284	125	23	16	13
AC-FT	6730	4170	2120	1600	1640	2440	17010	40960	18590	2630	1410	960

CAL YR 1986 TOTAL 63291 MEAN 173 MAX 1430 MIN 22 AC-FT 125500
WTR YR 1987 TOTAL 50539 MEAN 138 MAX 1020 MIN 13 AC-FT 100200

08249000 CONEJOS RIVER NEAR LASAUSES, CO

LOCATION.--Lat 37°18'01", long 105°44'47", in SW¼SW¼ sec.2, and SE¼NE¼ sec.10 (two channels), T.35 N., R.11 E., Conejos County, Hydrologic Unit 13010005, on left bank of main channel 125 ft downstream from bridge on State Highway 158 and on left bank of secondary channel 230 ft upstream from bridge on State Highway 158, 1.0 mi upstream from mouth, 2.1 mi north of Lasauses, and 13 mi southeast of Alamosa.

DRAINAGE AREA.--887 mi².

PERIOD OF RECORD.--March 1921 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to Oct. 1, 1966, published as "near La Sauses."

REVISED RECORDS.--WSP 1312: 1934(M).

GAGE.--Two water-stage recorders. Datum of gage on main (north) channel is 7,495.02 ft above National Geodetic Vertical Datum of 1929, and on secondary (south) channel is 7,496.89 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Main channel: See WSP 1732 for history of changes prior to Oct. 1, 1937. South channel: Prior to Oct. 23, 1934, at bridge 230 ft downstream at datum 0.56 ft, lower; Oct. 23, 1934, to May 3, 1936, at site 250 ft downstream, and May 4, 1936, to Oct. 13, 1965, at site 280 ft downstream, at datum 1.00 ft, lower.

REMARKS.--Estimated daily discharges: Dec. 11-14, 25, and Dec. 27 to Mar. 7. Records good except for estimated daily discharges, which are fair. Diversions for irrigation of about 75,000 acres upstream from station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--66 years, 191 ft³/s; 138,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,890 ft³/s, May 15, 1941; no flow at times some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 5, 1911, is the greatest since at least 1854, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,020 ft³/s, May 3; minimum daily, 2.1 ft³/s, July 25-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	120	160	121	132	129	138	1830	97	194	2.6	3.6
2	88	149	142	115	132	129	144	1850	88	147	3.2	3.9
3	94	167	142	117	134	136	144	1940	95	120	2.9	3.9
4	97	167	149	117	134	143	152	1480	110	85	3.2	3.9
5	90	172	142	108	134	156	176	1270	152	59	4.9	3.9
6	92	160	139	136	141	167	169	1360	216	44	14	3.9
7	104	151	130	125	134	202	159	1380	269	21	11	3.6
8	112	140	126	121	137	231	147	1510	331	12	12	4.0
9	121	123	120	106	137	233	133	1720	499	9.9	14	4.3
10	123	116	122	101	139	262	155	1650	682	8.3	14	4.0
11	127	130	115	99	141	229	254	1500	751	7.2	11	3.8
12	160	142	120	106	145	223	483	1400	650	7.5	10	4.0
13	178	151	125	111	150	210	530	1370	498	7.8	10	3.6
14	180	158	138	116	159	224	432	1390	413	7.8	9.4	4.4
15	177	158	141	121	156	229	439	1410	382	7.2	7.2	6.0
16	178	158	141	106	149	212	641	1440	391	6.3	6.0	16
17	186	158	122	99	151	191	942	1320	430	5.4	5.9	16
18	178	151	124	90	146	177	1170	1270	491	5.0	4.2	16
19	178	169	130	93	144	177	1280	1110	447	5.0	4.2	17
20	198	190	123	93	159	184	1350	951	425	4.7	3.6	17
21	218	178	113	90	144	169	1300	737	334	4.0	3.4	17
22	213	165	106	92	136	155	1110	641	301	4.5	3.6	17
23	194	174	108	95	133	194	1220	559	288	5.2	4.7	17
24	200	175	117	101	133	189	1390	530	245	2.2	6.4	18
25	185	169	119	112	142	177	1530	505	231	2.1	7.2	20
26	169	167	121	122	146	162	1590	422	230	2.1	8.0	20
27	162	160	119	127	137	146	1700	318	256	2.1	4.6	20
28	138	153	117	132	136	146	1880	250	246	2.1	4.2	22
29	122	174	115	137	---	140	1760	194	240	2.2	4.3	23
30	120	174	112	139	---	138	1750	142	217	2.2	3.9	23
31	116	---	113	128	---	131	---	113	---	2.2	3.9	---
TOTAL	4592	4719	3911	3476	3961	5596	24265	33570	10013	795.0	207.5	339.8
MEAN	148	157	126	112	141	181	809	1083	334	25.5	6.69	11.3
MAX	218	190	160	139	159	262	1880	1940	751	194	14	23
MIN	88	116	106	90	132	129	133	113	88	2.1	2.6	3.6
AC-FT	9110	9360	7760	6890	7860	11100	48140	66590	19860	1580	412	674

CAL YR 1986 TOTAL 126927.2 MEAN 348 MAX 1870 MIN 7.4 AC-FT 251800
WTR YR 1987 TOTAL 95448.3 MEAN 262 MAX 1940 MIN 2.1 AC-FT 189300

08251500 RIO GRANDE NEAR LOBATOS, CO

LOCATION.--Lat 37°04'42", long 105°45'22", in sec.22, T.33 N., R.11 E., Conejos County, Hydrologic Unit 13010002, on right bank at highway bridge, 6 mi north of Colorado-New Mexico State line, 7 mi downstream from Culebra Creek, 10 mi east of Lobatos, and 14 mi east of Antonito.

DRAINAGE AREA.--7,700 mi^2, approximately, includes 2,940 mi^2 in closed basin in northern part of San Luis Valley, Colo.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1899 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as "at Cenicero" 1899-1901, and as "near Cenicero" 1902-4.

REVISED RECORDS.--WSP 1312: 1919 (monthly runoff). WSP 210: Drainage area. WDR CO-78-1: 1976.

GAGE.--Water Stage recorder. Datum of gage is 7,427.63 ft above National Geodetic Vertical Datum of 1929. Prior to 1910, nonrecording gages at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 10 to Mar. 12, and Mar.30. Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals and diversion for irrigation, and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--31 years (water years 1900-30), 846 ft^3/s; 612,900 acre-ft/yr, includes period of extensive development for irrigation: 57 years (water years 1931-87), 459 ft^3/s; 332,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 13,200 ft^3/s, June 8, 1905, gage height, 9.1 ft, from rating curve extended above 8,000 ft^3/s; no flow at times in 1950-51, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1828, that of June 8, 1905.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,760 ft^3/s at 0730 May 19, gage height, 6.61 ft; minimum daily, 50 ft^3/s, Sept. 24-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	345	671	889	585	440	570	832	5250	1590	1760	80	85
2	350	768	840	695	440	570	907	5350	1170	1660	73	88
3	355	1010	808	725	445	580	907	5630	1140	1470	69	85
4	340	1070	808	680	445	600	898	5570	1250	1350	73	73
5	335	1090	776	660	445	625	943	5370	1520	1180	71	62
6	375	1110	768	660	450	650	979	5410	1970	988	78	60
7	375	1100	784	530	455	695	970	4980	2530	800	100	58
8	395	1060	764	430	460	780	1020	4690	2910	580	98	60
9	410	1020	760	430	460	830	988	4710	3260	440	88	60
10	420	907	580	430	460	910	970	4710	3630	350	82	58
11	430	848	295	430	465	925	1090	4720	4010	282	82	55
12	466	872	290	430	470	965	1340	4830	4360	254	82	55
13	538	970	360	435	590	997	1610	4780	4430	234	102	55
14	594	952	450	435	690	1020	1640	4830	4360	212	95	55
15	608	952	650	435	700	1070	1570	5070	4360	188	88	51
16	643	943	745	435	700	1030	1580	5390	4450	167	78	53
17	671	952	715	435	700	997	1910	5630	4620	157	73	58
18	692	907	685	435	705	1020	2390	6220	4810	145	71	60
19	699	916	685	435	595	1040	2780	6660	4960	167	67	60
20	736	970	690	435	520	1110	3040	6480	4960	192	62	58
21	816	1020	695	435	595	1100	3370	6030	4600	174	56	56
22	952	1020	680	435	610	1020	3400	5650	4190	154	55	53
23	961	979	675	435	610	1030	3560	5340	3820	136	56	53
24	943	979	660	435	510	1010	3630	5170	3450	122	60	50
25	898	943	635	435	520	988	3800	4980	3080	115	67	50
26	856	889	635	435	535	988	3990	4640	2600	108	73	50
27	832	907	625	435	545	925	4310	4140	2120	105	80	50
28	776	889	615	435	560	880	4720	3600	1790	95	95	50
29	728	872	575	440	---	824	4940	3100	1760	90	105	50
30	699	856	560	440	---	840	5070	2640	1740	88	100	53
31	678	---	565	440	---	816	---	2140	---	82	95	---
TOTAL	18916	28442	20282	14965	15120	27405	69154	153710	95440	13845	2454	1764
MEAN	610	948	654	483	540	884	2305	4958	3181	447	79.2	58.8
MAX	961	1110	889	725	705	1110	5070	6660	4960	1760	105	88
MIN	335	671	290	430	440	570	832	2140	1140	82	55	50
AC-FT	37520	56410	40230	29680	29990	54360	137200	304900	189300	27460	4870	3500

CAL YR 1986 TOTAL 405443 MEAN 1111 MAX 6080 MIN 88 AC-FT 804200
WTR YR 1987 TOTAL 461497 MEAN 1264 MAX 6660 MIN 50 AC-FT 915400

08251500 RIO GRANDE NEAR LOBATOS, CO--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1975 to September 1981.
WATER TEMPERATURES: October 1975 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1040 micromhos Sept. 17, 18, 1977; minimum, 89 micromhos May 9, 1979.
WATER TEMPERATURE. Maximum, 30.0°C July 17, 1977; minimum, 0.0°C on many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)
OCT 28...	1115	768	240	8.6	7.0	8.6	9.4	32	49	76
DEC 17...	1230	715	254	8.3	0.0	5.2	11.2	K7	66	90
FEB 25...	1245	620	261	8.2	0.0	3.4	11.6	K1	120	88
APR 07...	1300	980	380	8.7	8.5	11	8.8	1	K17	100
JUN 10...	1215	3720	172	7.9	17.0	15	7.3	170	300	57
AUG 11...	1145	78	564	8.6	20.5	--	7.4	K3	K3	--

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	ALKA-LINITY WATER DISSOLV FLD. AS CACO3 (MG/L)	CAR-BONATE WATER DISSOLV FIELD (MG/L AS CO3)
OCT 28...	23	4.4	17	3.3	29	4.6	0.20	24	--	--
DEC 17...	28	4.9	17	3.2	32	5.7	0.30	32	87	0
FEB 25...	27	5.0	15	3.3	31	4.8	0.30	30	85	E0
APR 07...	31	6.5	37	5.1	61	10	0.30	25	102	12
JUN 10...	17	3.4	10	2.6	26	2.5	0.20	20	52	1
AUG 11...	--	--	--	--	--	--	--	--	143	8

DATE	BICAR-BONATE WATER DISSOLV FIELD (MG/L AS HCO3	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
OCT 28...	--	164	156	0.140	0.010	0.50	0.01	0.080	0.040	50
DEC 17...	106	179	177	0.300	<0.010	0.40	--	0.050	0.040	--
FEB 25...	103	160	163	0.320	0.050	1.3	0.06	0.050	0.050	<10
APR 07...	100	248	241	0.390	0.010	1.0	0.01	0.160	0.070	--
JUN 10...	62	126	117	<0.100	0.030	1.5	0.04	0.080	0.080	180
AUG 11...	159	--	--	<0.100	<0.010	0.80	--	0.160	0.050	--

K BASED ON NON-IDEAL COLONY COUNT

08251500 RIO GRANDE NEAR LOBATOS, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD DIS-SOLVED (UG/L AS PB)	LITHIUM, DIS-SOLVED (UG/L AS LI)
OCT 28...	2	20	<0.5	1	--	<3	3	74	5	<6
FEB 25...	2	27	0.6	1	<1	<3	<1	32	5	<8
JUN 10...	<1	23	<0.5	<1	<1	<3	10	330	5	<6

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 28...	12	0.9	<10	1	<1	<1.0	180	<6	16
FEB 25...	14	<0.1	<10	<1	<1	<1.0	200	<6	20
JUN 10...	41	<0.1	<10	<1	<1	<1.0	140	<6	14

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L)
OCT 28...	1115	0.9	0.6	2.6	<0.4	3.2	<0.4	0.04	0.55
JUN 10...	1215	<0.4	1.1	2.1	1.1	2.5	1.1	0.02	0.20

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 28...	1115	768	26	54	--
DEC 17...	1230	715	17	33	--
FEB 25...	1245	620	16	27	--
APR 07...	1300	980	48	127	88
JUN 10...	1215	3720	72	723	53
AUG 11...	1145	78	27	5.7	82

TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO

There are 24 tunnels or ditches, all of which are equipped with water-stage recorders and Parshall flumes or sharp-crested weirs. Records provided by Colorado Division of Water Resources. The locations and diversions of 8 selected diversions are given in the following list.

09010000 Grand River ditch diverts water from tributaries of Colorado River to La Poudre Pass Creek (tributary to Cache la Poudre River) in NW¼ sec.21, T.6 N., R.75 W., in Platte River basin. Two collection ditches beginning at headgates located in sec.28, T.5 N., R.76 W., and sec.29, T.6 N., R.75 W., intercept all tributaries upstream on each side of the Colorado River and converge at La Poudre Pass.
REVISIONS (WATER YEARS).--WSP 1313: 1912-27.

09013000 Alva B. Adams tunnel diverts water from Grand Lake and Shadow Mountain Lake in NW¼ sec.9, T.3 N., R.75 W., in Colorado River basin, to Lake Estes (Big Thompson River) in sec.30, T.5 N., R.72 W., in Platte River basin. For daily discharge, see elsewhere in this report.

09021500 Berthoud Pass ditch diverts water from tributaries of Fraser River between headgate in sec.33, T.2 S., R.75 W., and Berthoud Pass, in Colorado River basin, to Hoop Creek (tributary to West Fork Clear Creek) in sec.10, T.3 S., R.75 W., in Platte River basin.

09042000 Hoosier Pass tunnel diverts water from tributaries of Blue River in Colorado River basin to Montgomery Reservoir (Middle Fork South Platte River) in sec.14, T.8 S., R.78 W., in Platte River basin; this water is again diverted to South Catamount Creek (tributary to Catamount Creek) in SE¼ sec.14, T.13 S., R.69 W., in the Arkansas River basin. Collection conduits extending from the right bank of Crystal Creek (tributary to Spruce Creek) in sec.14, T.7 S., R.78 W., right bank of Spruce Creek in sec.23, T.7 S., R.78 W., right bank of McCullough Gulch in sec.26, T.7 S., R.78 W., right bank of Monte Cristo Creek in SW¼NE¼ sec.2, T.8 S., R.78 W., left bank of Bemrose Creek in SW¼SW¼ sec.6, T.8 S., R.77 W., and intercepting intermediate tributaries, transport diversions to north portal of the tunnel.
REVISIONS (WATER YEARS).--WDR CO-86-1, WDR CO-86-2: 1984, 1985.

09050590 Harold D. Roberts tunnel diverts water from Dillon Reservoir (Blue River) in sec.18, T.5 S., R.77 W., in Blue River basin, to North Fork South Platte River (tributary to South Platte, River) in SW¼SW¼ sec.4, T.7 S., R.74 W., in Platte River basin. Figures include a small amount of ground-water inflow between Dillon Reservoir and east portal of tunnel.

09063700 Homestake tunnel diverts water from Homestake Lake (Middle Fork Homestake Creek), in sec.17, T.8 S., R.81 W., in Eagle River basin, to Lake Fork in sec.9, T.9 S., R.81 W., in Arkansas River basin. Water is imported to Homestake Lake from tributaries of Homestake Creek by collection conduits that extend from right bank of French Creek in sec.28, T.7 S., R.81 W., and left bank of East Fork Homestake Creek in sec.9, T.8 S., R.81 W., and intercept intermediate tributaries.

09077160 Charles H. Bousted tunnel diverts water from the main stem and tributaries of Fryingpan River (tributary to Roaring Fork River), in Colorado River basin, to Lake Fork in sec.10, T.9 S., R.81 W., in Arkansas River basin. Water is transported to west portal of tunnel (at lat 39°14'44", long 106°31'47"), by a series of collection conduits extending between headgates on right bank of Sawyer Creek at lat 39°15'58", long 106°38'19" and right bank of Fryingpan River at lat 39°14'40", long 106°31'49", and intercepting intermediate tributaries.

09077500 Busk-Ivanhoe tunnel diverts water from Ivanhoe Lake (Ivanhoe Creek), tributary to Fryingpan River in sec.13, T.9 S., R.82 W., in Roaring Fork River basin, to Busk Creek (tributary to Lake Fork) in sec. 20, T.9 S., R.81 W., in Arkansas River basin.

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
(SOME PREVIOUSLY UNPUBLISHED DIVERSIONS TO THE PLATTE AND ARKANSAS RIVER BASINS ARE INCLUDED IN THIS TABLE)

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
TO PLATTE RIVER BASIN												
09010000	Diversions during water year 1987 for this tunnel will be published in a subsequent report.											
09013000	10,930	17,060	24,490	24,060	22,110	26,260	32,580	32,870	19,750	32,920	18,570	12,650
Water year	1986,	274,200										
09013000	14,890	17,080	30,480	25,630	18,410	13,580	31,380	24,350	12,920	23,970	27,520	5,990
Water year	1987,	246,200										
09021500	0	0	0	0	0	0	0	0	182	83	6	0
Water year	1987,	271										
09050590	0	518	3,630	4,480	4,420	726	842	26	0	0	0	0
Water year	1987,	14,640										
TO ARKANSAS RIVER BASIN												
09042000	Diversions during water year 1987 for this tunnel will be published in a subsequent report.											
09063700	Diversions during water year 1986-87 for this tunnel will be published in a subsequent report.											
09077160	Diversions during water year 1987 for this tunnel will be published in a subsequent report.											

TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO--Continued

TO ARKANSAS RIVER BASIN--Continued

09077500	0	0	0	0	0	0	0	547	4,170	3,520	993	373
Water year 1984, 9,760												
09077500	248	0	0	0	0	0	0	819	4,020	739	305	134
Water year 1985, 62,270												
09077500	212	0	0	0	0	0	68	1,090	2,510	934	518	175
Water year 1986, 5,490												

09077500 Diversions during water year 1987 for this tunnel will be published in a subsequent report.

TRANSMOUNTAIN DIVERSIONS NO LONGER PUBLISHED

Following is a list of Transmountain Diversions no longer being published in this report. Diversions, in acre-feet, for these sites are available from the State of Colorado, Division of Water Resources.

TO PLATTE RIVER BASIN

09012000	Eureka ditch
09022500	Moffat Water tunnel
09046000	Boreas Pass ditch
09047300	Vidler tunnel

TO ARKANSAS RIVER BASIN

09061500	Columbine ditch
09062000	Ewing ditch
09062500	Wurtz ditch
09073000	Twin Lakes tunnel
09115000	Larkspur ditch

TO RIO GRANDE BASIN

09118200	Tarbell ditch
09121000	Tabor ditch
09341000	Treasure Pass ditch
09347000	Don LaFont ditches 1&2
09348000	Williams Cr-Squaw Pass ditch
09351000	Pine River-Weminuche Pass ditch
09351500	Weminuche Pass ditch

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

As the number of streams on which streamflow information is likely to be desired far exceeds the number of streamflow-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than streamflow-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or flood-flow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a second table.

CREST-STAGE PARTIAL-RECORD STATIONS

The following table contains annual maximum discharge for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1987

Station number	Station name	Location	Total drainage area (mi²)	Non contributing	Period of record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft³/s)
		PLATTE RIVER BASIN						
06708500	Deer Creek near Littleton, CO	Lat 39°32'56", long 105°07'59", in NE¼NE¼ sec.8, T.6 S., R.69 W., Jefferson County, 70 ft upstream from county bridge over Deer Creek, 7.5 mi southwest of Littleton.	26.2	-	1942-46, 1978-87	1987	5.17	47
--------	Lee Gulch at Littleton, CO	Lat 39°35'47", long 105°00'57", in SW¼SW¼ sec.21, T.5 S., R.68W., Arapahoe County, on right bank 30 ft upstream from culvert under Prince St., and 0.6 mi upstream from mouth in Littleton.	a		1980-87	1987	13.06	114
--------	Dutch Creek at Platte Canyon Drive, near Littleton, CO	Lat 39°36'01", long 105°02'28", in NW¼SE¼ sec.19, T.5 S., R.69 W., Arapahoe County, on left bank 150 ft downstream from bridge on Platte Canyon Road.	a	-	1985-87	1985 1986 1987	b10.43 b10.50 9.41	195 245 226
--------	Littles Creek at Littleton, CO	Lat 39°36'44", long 105°01'09", in SE¼SE¼ sec.17, T.5.S., R.68 W., Arapahoe County, 50 ft downstream from Rapp St., and 150 ft south of W. Alamo St. in Littleton.	a		1985-87	1987	11.03	104
06710350	Bear Creek near Evergreen, CO	Lat 39°38'11", long 105°20'51", in NW¼NW¼ sec.9, T.5 S., R.71 W., Jefferson County, 1.4 mi upstream from confluence with Evergreen Lake, 1.6 mi northwest of Evergreen.	96.6	-	1978-87	1987	6.99	312
06710400	Cub Creek at Evergreen, CO	Lat 39°37'50", long 105°19'16", in NW¼SE¼ sec.10, T.5 S., R.71 W., Jefferson County, 0.1 mi upstream from confluence with Bear Creek.	22.2	-	1978-87	1987	6.80	88
06710600	Mt. Vernon Creek near Morrison, CO	Lat 39°40'49", long 105°11'50", in NW¼NW¼ sec.26, T.4 S., R.70 W., Jefferson County, 1.9 mi north of Morrison.	7.58	-	1978-87	1987		Not determined
06710990	Parmalee Gulch at mouth at Indian Hills, CO	Lat 39°36'57", long 105°13'54", in NW¼SE¼ sec.16, T.5 S., R.70 W., Jefferson County, 20 ft upstream from box type culvert beneath U.S. Highway 285.	5.80	-	1978-87	1987	9.25	60
06711000	Turkey Creek near Morrison, CO	Lat 39°37'22", long 105°11'13", in NE¼NE¼ sec.14, T.5 S., R.70 W., Jefferson County, 2.2 mi southwest of Morrison.	48.0	-	1942-53, 1969, 1978-87	1987	40.59	197
--------	Weaver Creek near Lakewood, CO	Lat39°38'13", long 105°07'47", in NE¼NE¼ sec.8, T.5 S., R.69 W., Jefferson County, 500 ft upstream from Simms St., and 700 ft south of West Quincy Ave.	a		1982-87	1987	10.86	45

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1987--Continued

Station number	Station name	Location	Total drainage area (mi^2)	Non contributing	Period of record	Annual maximum		
						Date	Gage height (feet)	Discharge (ft^3/s)
		PLATTE RIVER BASIN--Continued						
--------	Little Dry Creek near Arapahoe Road, CO (formerly published as Inflow to Holly Reservoir)	Lat 39°35'38", long 104°54'23", in NE¼NE¼ sec.29, T.5.S., R.67 W., Arapahoe County, on right bank, 800 ft downstream from Quebec St. north of East Yale Ave., in Denver.	a		1985-87	1987	9.15	288
--------	Willow Creek at Dry Creek Road, near Englewood, CO	Lat39°34'49", long 104°58'40", in NW¼NE¼ sec.32, T.5 S., R.67 W., Arapahoe County, on left bank, upstream wingwall of bridge on Dry Creek Road over Willow Creek.	a		1985-87	1985 1986 1987	14.28 7.19 10.11	3,470 105 1,300
--------	Little Dry Creek above Englewood, CO	Lat39°38'56", long 104°58'40", in SW¼NW¼ sec.2, T.5 S., R.68 W., Arapahoe County, 40 ft above Clarkson St. bridge, and 800 ft south of Hampton Ave., in Cherry Hills Village.	a		1982-87	1987	12.62	532
06711570	Harvard Gulch at Colorado Blvd. at Denver, CO	Lat 39°40'08", long 104°56'32", in SE¼SE¼ sec.30, T.4 S., R67 W., Denver County, on left bank, 100 ft upstream from S. Jackson St., and 400 ft north of E. Yale Ave.	a		1979-87	1987	12.15	335
--------	Harvard Gulch below University Blvd. at Denver, CO	Lat 39°40'10", long 104°57'33", in SE¼SE¼ sec.26, T.4.S., R.68 W., Denver County, 200 ft downstream from University Blvd., and 600 ft north of East Yale Ave., in Denver.	a		1979-87	1987	13.13	579
06711575	Harvard Gulch at Harvard Park at Denver, CO	Lat 39°40'21", long 104°58'35", in NW¼SW¼ sec.26, T.4 S., R.68 W., Denver County, on left bank, 200 ft north of E. Harvard Ave. and 300 ft west of S. Ogden St., directly north of Porter Hospital.	a		1979-87	1987	14.39	372
06711600	Sanderson Gulch tributary at Lakewood, CO	Lat 39°41'19", long 105°04'54", in NE¼NW¼ sec.23, T.4 S., R.68 W., Jefferson County, 300 ft upstream from S. Wadsworth Blvd., 300 ft south of W. Florida Ave. in Lakewood.	.38	-	1969-87	1987	12.62	110
--------	Sanderson Gulch at Mouth at Navajo St. at Denver, CO	Lat 39°41'33", long 105°00'12", in SW¼NE¼ sec.21, T.4.S., R.68 W., Denver County, 200 ft south of Louisiana Ave., at Navajo St.	a		1985-87	1987	11.50	400
--------	Weir Gulch upstream from 1st Avenue, at Denver, CO	Lat 39°43'03", long 105°02'30", in NW¼SE¼ sec.7, T.4.S., R.68 W., Denver County, 250 ft upstream from 1st Ave., in Denver.	a		1985-87	1987	10.68	206
--------	Dry Gulch at Denver, CO	Lat 39°44'03", long 105°02'20", in SW¼NE¼ sec.6, T.4 S., R.68 W., Denver County, 800 ft upstream from confluence with Lakewood Gulch, north of West 10th Ave., at Perry St., in Denver.	a		1980-87	1987	12.17	170
--------	Lakewood Gulch at Denver, CO	Lat39°44'06", long 105°01'54", in SW¼NW¼ sec.5, T.4 S., R.68 W., Denver County, 2,000 ft downstream from confluence with Dry Gulch, near intersection of Knox Ct., and West 12th Ave., in Denver.	a		1980-87	1987	14.58	670
--------	Sloans Lake, south Tributary at Denver, CO	Lat 39°44'44", long 105°03'28", in NW¼SE¼ sec.36, T.3.S., R.69 W., Jefferson County, 50 ft south of 18th Ave., at Depew St.	a		1965-87	1987	2.65	120
--------	Lena Gulch at Upper Site, at Golden, CO	Lat 39°43'21", long 105°11'46", in NE¼NW¼ sec.11, T.4.S., R.70 W., Jefferson County, 60 ft north of US 40, and 2,200 ft southwest of US 6, in Golden.	a		1985-87	1987	10.92	373
--------	Lena Gulch at Alkire at Golden, CO	Lat 39°44'27", long 105°08'49", in SE¼SE¼ sec.31, T.3S., R.69 W., Jefferson County, on right bank 200 ft north of West 15th Drive at Alkire Court, in Golden.	c9.0		1974-79, 1986-87	1986 1987	10.33 13.78	68 587

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1987--Continued

							Annual maximum	
Station number	Station name	Location	Total drainage area (mi^2)	Non contributing	Period of record	Date	Gage height (feet)	Discharge (ft^3/s)
		PLATTE RIVER BASIN--Continued						
--------	Westerly Creek at Aurora, CO	Lat 39°44'43", long 104°52'48", in NW¼SW¼ sec.34, T.3 S., R.67 W., Adams County, 50 ft upstream from footbridge, 800 ft upstream from Montview Blvd., and 100 ft east of Boston St., in Aurora.	a		1982-87	1987	13.91	582
06714310	Sand Creek tributary at Denver, CO	Lat 39°47'07", long 104°50'31", in SW¼SW¼ sec.13, T.3 S., R.67 W., Denver County, in median of Andrews Drive Parkway, 50 ft downstream from Troy St. in Denver.	.29	-	1971-87	1987	12.51	226
--------	Little Dry Creek at Westminster, CO	Lat 39°49'34", long 105°02'25", in NW¼NE¼ sec.6, T.3 S., R.68 W., Adams County, 400 ft downstream from 72nd Ave. in Westminster.	a		1982-87	1987	11.98	762
--------	Four Mile Creek near Crisman, CO	Lat 40°02'44", long 105°22'02", in SE¼SW¼ sec.17, T.1 N., R.71 W., Boulder county, on right bank .65 mile below junction of Gold Run Road.	a		1985-87	1985 1986 1987	Not determined 10.72 10.68	 68 66
--------	Sunshine Creek at Boulder, CO	Lat 40°01'15", long 105°17'47", in NW¼SW¼ sec.25, T.1N., R.71 W., Boulder County, on right bank .2 mile past Hospital at Open Space Park, 125 ft upstream from footbridge.	a		1986-87	1986 1987	1.51 1.50	6.4 6.2
06723000	Middle Fork St. Vrain Creek near Allens Park, CO	Lat 40°10'07", long 105°26'27", in SW¼NW¼ sec.3, T.2 N., R.72 W., Boulder County, 1.4 mi northeast from Raymond.	28.0	-	1925-30 1978-87	1987	6.74	178
06732500	Fall River at Estes Park, CO	Lat 40°22'40", long 105°31'56", in NW¼NW¼ sec.25, T.5 N., R.73 W., Larimer County, 100 ft upstream from State bridge 34 and 0.7 mi upstream from mouth. Destroyed by flood, 7-82.	39.5	-	1947-53 1978-87	1987	7.22	110
06736650	Cedar Creek at Cedar Cove, CO	Lat 40°25'08", long 105°15'53", NW¼NW¼ sec.8, T.5 N., R.70 W., Larimer County, 0.2 mi north of Cedar Cove and 4.1 mi southeast of Drake.	18.9	-	1978-87	1987	--	<10
		ARKANSAS RIVER BASIN						
07091000	Chalk Creek near Nathrop, CO	Lat 38°44'01", long 106°09'34", in SE¼NW¼ sec.19, T.15 S., R.78 W., Chaffee County, 4 mi west of Nathrop.	97.0	-	1910, 1949-56, 1978-87	1987	3.05	890
07107500	St. Charles River Burnt Mill, CO	Lat 38°03'06", long 104°47'35", in NE¼NE¼ sec.17, T.23 S., R.66 W., Pueblo County, 5.9 mi downstream from North St. Charles River.	166	-	1923-33, 1978-87	1987	3.07	560

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a Not determined.
b At different datum.
c Approximately.

PLATTE RIVER BASIN

06714215 SOUTH PLATTE RIVER AT 64TH ST. AT COMMERCE CITY, CO.

PH (STANDARD UNITS), CALENDAR YEAR JANUARY TO DECEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
1	---	---	---	---	8.1	7.7	8.5	7.3	---	---	---	---
2	---	---	---	---	8.0	7.6	8.3	7.9	---	---	---	---
3	---	---	---	---	8.0	6.6	8.4	8.0	---	---	---	---
4	---	---	---	---	---	---	8.3	8.0	---	---	---	---
5	---	---	---	---	8.1	8.0	8.4	8.1	---	---	---	---
6	---	---	---	---	8.1	8.0	8.3	7.9	---	---	---	---
7	---	---	---	---	8.0	7.8	8.1	7.7	---	---	---	---
8	---	---	---	---	7.8	7.6	8.2	7.3	---	---	---	---
9	---	---	---	---	8.1	7.5	7.4	7.2	---	---	---	---
10	---	---	---	---	8.2	8.1	7.5	7.2	---	---	---	---
11	---	---	---	---	8.3	8.1	7.5	7.3	---	---	---	---
12	---	---	---	---	8.3	8.0	7.8	7.3	---	---	---	---
13	---	---	---	---	8.2	8.0	7.7	7.4	---	---	---	---
14	---	---	---	---	8.2	8.1	7.8	7.3	---	---	---	---
15	---	---	---	---	8.2	8.0	7.9	7.6	---	---	---	---
16	---	---	---	---	8.2	8.1	8.1	7.6	---	---	---	---
17	---	---	---	---	8.2	8.1	8.0	7.7	---	---	---	---
18	---	---	---	---	8.3	8.1	7.9	7.8	---	---	---	---
19	---	---	---	---	8.2	8.0	7.8	7.7	---	---	---	---
20	---	---	---	---	8.2	7.8	7.9	7.7	---	---	---	---
21	---	---	---	---	8.3	8.2	---	---	---	---	---	---
22	---	---	---	---	8.3	8.1	8.0	7.9	---	---	---	---
23	---	---	---	---	8.2	8.0	7.9	7.8	---	---	---	---
24	---	---	---	---	8.2	7.9	7.9	7.8	---	---	---	---
25	---	---	---	---	8.1	7.9	7.8	7.8	---	---	---	---
26	---	---	---	---	8.1	7.8	7.9	7.7	---	---	---	---
27	---	---	---	---	8.3	7.8	7.8	7.7	---	---	---	---
28	---	---	---	---	8.1	7.8	7.7	7.7	---	---	---	---
29	---	---	---	---	8.0	7.8	7.8	7.7	---	---	---	---
30	---	---	---	---	7.9	7.5	7.7	7.6	---	---	---	---
31	---	---	---	---	8.2	7.9	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

TEMPERATURE, WATER (DEG. C), CALENDAR YEAR JANUARY TO DECEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
1	---	---	---	---	8.5	3.0	13.0	4.5	---	---	---	---
2	---	---	---	---	9.5	3.5	9.5	4.5	---	---	---	---
3	---	---	---	---	10.5	4.5	11.0	5.5	---	---	---	---
4	---	---	---	---	---	---	9.0	6.5	---	---	---	---
5	---	---	---	---	11.5	6.0	9.0	5.0	---	---	---	---
6	---	---	---	---	12.5	7.0	11.0	5.5	---	---	---	---
7	---	---	---	---	12.5	7.5	17.5	6.5	---	---	---	---
8	---	---	---	---	8.5	4.0	13.5	7.5	---	---	---	---
9	---	---	---	---	4.0	3.0	15.5	8.0	---	---	---	---
10	---	---	---	---	8.0	3.0	15.5	9.0	---	---	---	---
11	---	---	---	---	7.5	6.0	13.5	8.0	---	---	---	---
12	---	---	---	---	11.5	6.0	9.5	4.0	---	---	---	---
13	---	---	---	---	12.0	8.0	9.5	3.5	---	---	---	---
14	---	---	---	---	12.0	8.0	15.0	5.5	---	---	---	---
15	---	---	---	---	9.0	7.5	15.5	8.0	---	---	---	---
16	---	---	---	---	8.0	5.0	14.5	9.0	---	---	---	---
17	---	---	---	---	6.5	4.5	13.5	8.0	---	---	---	---
18	---	---	---	---	11.0	5.5	12.5	8.0	---	---	---	---
19	---	---	---	---	12.0	8.0	13.0	8.5	---	---	---	---
20	---	---	---	---	9.0	5.5	10.0	6.0	---	---	---	---
21	---	---	---	---	8.5	4.5	---	---	---	---	---	---
22	---	---	---	---	7.5	4.5	13.5	6.5	---	---	---	---
23	---	---	---	---	8.5	4.0	14.5	7.5	---	---	---	---
24	---	---	---	---	7.0	4.0	14.0	9.0	---	---	---	---
25	---	---	---	---	7.5	4.0	14.5	9.0	---	---	---	---
26	---	---	---	---	14.5	4.5	14.5	9.5	---	---	---	---
27	---	---	---	---	8.5	1.5	13.0	10.5	---	---	---	---
28	---	---	---	---	7.5	0.0	15.0	10.5	---	---	---	---
29	---	---	---	---	7.5	2.0	15.0	10.5	---	---	---	---
30	---	---	---	---	10.5	2.0	14.5	10.5	---	---	---	---
31	---	---	---	---	15.0	4.5	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

06714215 SOUTH PLATTE RIVER AT 64TH ST. AT COMMERCE CITY, CO.--Continued

OXYGEN DISSOLVED (DO), MG/L, CALENDAR YEAR JANUARY TO DECEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
1	---	---	---	---	9.3	8.0	10.5	8.4	---	---	---	---
2	---	---	---	---	10.0	8.9	10.6	9.3	---	---	---	---
3	---	---	---	---	10.5	9.2	10.2	8.3	---	---	---	---
4	---	---	---	---	---	---	10.0	8.4	---	---	---	---
5	---	---	---	---	10.0	8.9	10.4	8.9	---	---	---	---
6	---	---	---	---	10.1	8.8	10.4	8.2	---	---	---	---
7	---	---	---	---	10.1	8.8	13.1	7.9	---	---	---	---
8	---	---	---	---	10.5	9.1	11.9	6.2	---	---	---	---
9	---	---	---	---	10.8	9.7	10.8	5.8	---	---	---	---
10	---	---	---	---	10.5	9.3	9.5	5.3	---	---	---	---
11	---	---	---	---	10.1	9.2	8.1	5.1	---	---	---	---
12	---	---	---	---	9.8	8.7	10.3	5.4	---	---	---	---
13	---	---	---	---	9.5	8.5	9.7	7.0	---	---	---	---
14	---	---	---	---	9.6	8.6	10.4	6.9	---	---	---	---
15	---	---	---	---	9.9	8.2	9.3	7.4	---	---	---	---
16	---	---	---	---	9.9	8.1	9.7	7.5	---	---	---	---
17	---	---	---	---	10.3	9.9	9.0	7.2	---	---	---	---
18	---	---	---	---	10.5	8.3	8.2	7.1	---	---	---	---
19	---	---	---	---	9.1	8.3	8.4	7.2	---	---	---	---
20	---	---	---	---	9.7	8.6	8.4	7.7	---	---	---	---
21	---	---	---	---	9.9	8.6	---	---	---	---	---	---
22	---	---	---	---	9.6	8.5	8.4	6.9	---	---	---	---
23	---	---	---	---	10.1	9.0	7.9	6.5	---	---	---	---
24	---	---	---	---	10.1	9.0	7.6	6.5	---	---	---	---
25	---	---	---	---	10.7	9.3	7.4	6.5	---	---	---	---
26	---	---	---	---	10.3	7.4	7.4	6.5	---	---	---	---
27	---	---	---	---	10.6	7.5	7.5	6.7	---	---	---	---
28	---	---	---	---	10.7	9.7	9.2	6.9	---	---	---	---
29	---	---	---	---	10.9	9.1	9.5	7.5	---	---	---	---
30	---	---	---	---	10.8	8.6	10.3	8.7	---	---	---	---
31	---	---	---	---	10.6	8.2	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

395014104565700 SOUTH PLATTE RIVER AT 78TH AT COMMERCE CITY CO.

PH (STANDARD UNITS), CALENDAR YEAR JANUARY TO DECEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
1	---	---	---	---	7.4	7.3	7.7	7.4	---	---	---	---
2	---	---	---	---	7.4	7.0	7.7	7.4	---	---	---	---
3	---	---	---	---	7.6	7.0	7.8	7.4	---	---	---	---
4	---	---	---	---	7.7	7.4	7.8	7.5	---	---	---	---
5	---	---	---	---	7.7	7.4	7.7	7.4	---	---	---	---
6	---	---	---	---	7.7	7.5	7.7	7.3	---	---	---	---
7	---	---	---	---	7.6	7.4	7.5	7.2	---	---	---	---
8	---	---	---	---	7.7	7.5	7.4	7.2	---	---	---	---
9	---	---	---	---	7.7	7.5	7.4	7.2	---	---	---	---
10	---	---	---	---	7.8	7.5	7.4	7.2	---	---	---	---
11	---	---	---	---	7.7	7.5	7.5	7.2	---	---	---	---
12	---	---	---	---	7.6	7.4	7.6	7.4	---	---	---	---
13	---	---	---	---	7.6	7.4	7.6	7.4	---	---	---	---
14	---	---	---	---	7.7	7.5	7.5	7.3	---	---	---	---
15	---	---	---	---	7.7	7.6	7.5	7.3	---	---	---	---
16	---	---	---	---	7.7	7.5	7.6	7.3	---	---	---	---
17	---	---	---	---	7.7	7.5	7.6	7.4	---	---	---	---
18	---	---	---	---	7.8	7.5	7.7	7.5	---	---	---	---
19	---	---	---	---	7.8	7.5	7.7	7.5	---	---	---	---
20	---	---	---	---	7.7	7.5	7.6	7.4	---	---	---	---
21	---	---	---	---	7.7	7.4	---	---	---	---	---	---
22	---	---	---	---	7.8	7.5	7.7	7.5	---	---	---	---
23	---	---	---	---	7.7	7.5	7.6	7.3	---	---	---	---
24	---	---	---	---	7.7	7.5	7.4	7.2	---	---	---	---
25	---	---	---	---	7.7	7.5	7.4	7.3	---	---	---	---
26	---	---	---	---	7.6	7.5	7.4	7.2	---	---	---	---
27	---	---	---	---	7.6	7.4	7.3	7.1	---	---	---	---
28	---	---	---	---	7.5	7.4	7.6	7.3	---	---	---	---
29	---	---	---	---	7.5	7.3	7.5	7.2	---	---	---	---
30	---	---	---	---	7.6	7.2	7.3	7.2	---	---	---	---
31	---	---	---	---	7.6	7.3	---	---	---	---	---	---
MONTH	---	---	---	---	7.8	7.0	---	---	---	---	---	---

PLATTE RIVER BASIN

395014104565700 SOUTH PLATTE RIVER AT 78TH AT COMMERCE CITY CO.--Continued

TEMPERATURE, WATER (DEG. C), CALENDAR YEAR JANUARY TO DECEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
1	---	---	---	---	11.0	6.0	14.5	10.0	---	---	---	---
2	---	---	---	---	11.5	7.0	13.0	7.0	---	---	---	---
3	---	---	---	---	13.0	7.5	14.0	8.5	---	---	---	---
4	---	---	---	---	13.5	8.0	13.5	10.0	---	---	---	---
5	---	---	---	---	14.0	8.5	13.0	8.0	---	---	---	---
6	---	---	---	---	14.0	9.0	14.0	8.5	---	---	---	---
7	---	---	---	---	15.5	10.5	15.5	10.5	---	---	---	---
8	---	---	---	---	12.5	7.0	15.5	10.0	---	---	---	---
9	---	---	---	---	9.5	5.5	16.0	12.0	---	---	---	---
10	---	---	---	---	11.5	6.0	15.5	11.0	---	---	---	---
11	---	---	---	---	11.5	8.5	15.0	11.5	---	---	---	---
12	---	---	---	---	14.5	8.5	13.0	7.0	---	---	---	---
13	---	---	---	---	14.5	10.0	12.5	6.5	---	---	---	---
14	---	---	---	---	14.5	10.0	15.5	9.0	---	---	---	---
15	---	---	---	---	12.5	10.0	16.5	12.0	---	---	---	---
16	---	---	---	---	11.0	7.5	17.0	12.5	---	---	---	---
17	---	---	---	---	10.5	7.0	16.0	11.5	---	---	---	---
18	---	---	---	---	13.5	7.5	15.0	11.0	---	---	---	---
19	---	---	---	---	14.5	9.5	15.0	10.5	---	---	---	---
20	---	---	---	---	12.5	9.5	12.0	8.0	---	---	---	---
21	---	---	---	---	12.5	7.0	13.0	7.0	---	---	---	---
22	---	---	---	---	10.5	7.5	14.0	8.0	---	---	---	---
23	---	---	---	---	12.5	6.5	15.0	9.0	---	---	---	---
24	---	---	---	---	12.0	8.0	14.5	10.0	---	---	---	---
25	---	---	---	---	12.5	8.0	15.0	10.0	---	---	---	---
26	---	---	---	---	15.0	8.5	15.0	11.0	---	---	---	---
27	---	---	---	---	13.0	6.5	14.0	11.5	---	---	---	---
28	---	---	---	---	11.5	6.0	15.5	11.0	---	---	---	---
29	---	---	---	---	12.0	7.0	15.5	11.5	---	---	---	---
30	---	---	---	---	13.0	7.5	15.0	11.5	---	---	---	---
31	---	---	---	---	15.5	8.5	---	---	---	---	---	---
MONTH	---	---	---	---	15.5	5.5	17.0	6.5	---	---	---	---

OXYGEN, DISSOLVED (DO), MG/L, CALENDAR YEAR JANUARY TO DECEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
1	---	---	---	---	---	---	8.5	6.9	---	---	---	---
2	---	---	---	---	---	---	9.4	7.7	---	---	---	---
3	---	---	---	---	---	---	9.2	7.1	---	---	---	---
4	---	---	---	---	8.8	7.6	8.8	7.4	---	---	---	---
5	---	---	---	---	8.7	7.5	9.4	7.8	---	---	---	---
6	---	---	---	---	8.8	7.5	9.2	7.1	---	---	---	---
7	---	---	---	---	8.7	6.8	9.1	7.1	---	---	---	---
8	---	---	---	---	9.0	7.0	9.1	6.7	---	---	---	---
9	---	---	---	---	9.1	8.3	9.2	6.5	---	---	---	---
10	---	---	---	---	9.2	7.9	9.2	6.5	---	---	---	---
11	---	---	---	---	8.7	7.7	9.0	6.5	---	---	---	---
12	---	---	---	---	8.6	7.2	9.4	6.9	---	---	---	---
13	---	---	---	---	8.3	7.0	9.4	7.8	---	---	---	---
14	---	---	---	---	8.7	7.2	8.7	6.8	---	---	---	---
15	---	---	---	---	8.8	7.5	7.8	6.4	---	---	---	---
16	---	---	---	---	8.8	7.6	7.8	6.3	---	---	---	---
17	---	---	---	---	9.0	8.2	8.6	6.7	---	---	---	---
18	---	---	---	---	8.6	7.4	8.2	6.9	---	---	---	---
19	---	---	---	---	8.5	7.4	8.3	7.0	---	---	---	---
20	---	---	---	---	8.2	7.4	8.9	7.5	---	---	---	---
21	---	---	---	---	9.2	7.6	9.1	7.4	---	---	---	---
22	---	---	---	---	9.0	7.6	8.6	7.2	---	---	---	---
23	---	---	---	---	9.0	7.4	8.4	7.1	---	---	---	---
24	---	---	---	---	8.6	7.5	8.2	7.2	---	---	---	---
25	---	---	---	---	8.8	6.7	8.3	7.4	---	---	---	---
26	---	---	---	---	8.5	6.3	8.4	7.5	---	---	---	---
27	---	---	---	---	9.2	6.4	8.3	7.0	---	---	---	---
28	---	---	---	---	9.5	7.9	8.6	7.2	---	---	---	---
29	---	---	---	---	9.5	7.6	8.4	6.9	---	---	---	---
30	---	---	---	---	9.1	6.9	8.0	7.1	---	---	---	---
31	---	---	---	---	8.8	6.6	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	9.4	6.3	---	---	---	---

PLATTE RIVER BASIN

395116104561300 SOUTH PLATTE RIVER AT 88TH ST AT COMMERCE CITY

PH (STANDARD UNITS), CALENDAR YEAR JANUARY TO DECEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
1	---	---	---	---	7.4	7.3	7.5	7.4	---	---	---	---
2	---	---	---	---	---	---	7.6	7.5	---	---	---	---
3	---	---	---	---	7.8	7.4	---	---	---	---	---	---
4	---	---	---	---	7.5	7.2	7.8	7.7	---	---	---	---
5	---	---	---	---	7.6	7.4	7.8	7.6	---	---	---	---
6	---	---	---	---	---	---	7.8	7.5	---	---	---	---
7	---	---	---	---	---	---	7.7	7.5	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	7.5	7.1	---	---	---	---
10	---	---	---	---	8.0	7.4	7.5	7.4	---	---	---	---
11	---	---	---	---	10.5	7.5	7.6	7.4	---	---	---	---
12	---	---	---	---	---	---	7.7	7.5	---	---	---	---
13	---	---	---	---	7.6	7.4	7.7	7.6	---	---	---	---
14	---	---	---	---	7.7	7.5	7.6	7.4	---	---	---	---
15	---	---	---	---	7.7	7.6	7.5	7.4	---	---	---	---
16	---	---	---	---	7.7	7.6	7.5	7.2	---	---	---	---
17	---	---	---	---	7.7	7.5	7.3	7.2	---	---	---	---
18	---	---	---	---	7.7	7.5	7.4	7.3	---	---	---	---
19	---	---	---	---	7.6	7.4	7.4	7.1	---	---	---	---
20	---	---	---	---	7.6	7.5	7.6	7.4	---	---	---	---
21	---	---	---	---	7.7	7.5	7.5	7.1	---	---	---	---
22	---	---	---	---	7.7	7.5	7.4	7.1	---	---	---	---
23	---	---	---	---	7.6	7.5	7.3	7.0	---	---	---	---
24	---	---	---	---	7.6	7.5	7.5	7.1	---	---	---	---
25	---	---	---	---	7.5	7.4	7.6	7.4	---	---	---	---
26	---	---	---	---	7.5	7.4	7.8	7.5	---	---	---	---
27	---	---	---	---	7.6	7.4	7.7	7.2	---	---	---	---
28	---	---	---	---	7.5	7.4	7.6	7.1	---	---	---	---
29	---	---	---	---	7.4	7.4	7.5	7.2	---	---	---	---
30	---	---	---	---	7.4	7.3	7.9	7.4	---	---	---	---
31	---	---	---	---	7.5	7.4	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

TEMPERATURE, WATER (DEG. C), CALENDAR YEAR JANUARY TO DECEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
1	---	---	---	---	11.0	6.0	13.5	11.0	---	---	---	---
2	---	---	---	---	---	---	13.0	8.5	---	---	---	---
3	---	---	---	---	12.5	8.0	---	---	---	---	---	---
4	---	---	---	---	12.5	8.5	13.0	10.5	---	---	---	---
5	---	---	---	---	13.5	9.0	13.0	8.5	---	---	---	---
6	---	---	---	---	13.5	10.0	15.0	9.0	---	---	---	---
7	---	---	---	---	14.5	11.0	16.0	12.0	---	---	---	---
8	---	---	---	---	13.0	6.5	---	---	---	---	---	---
9	---	---	---	---	8.5	5.5	16.0	13.5	---	---	---	---
10	---	---	---	---	11.0	6.5	16.0	12.5	---	---	---	---
11	---	---	---	---	11.5	8.5	15.0	13.0	---	---	---	---
12	---	---	---	---	---	---	13.5	7.5	---	---	---	---
13	---	---	---	---	14.0	10.5	12.0	7.0	---	---	---	---
14	---	---	---	---	13.5	11.0	16.0	10.5	---	---	---	---
15	---	---	---	---	12.5	11.0	17.5	7.0	---	---	---	---
16	---	---	---	---	11.5	7.0	18.0	8.0	---	---	---	---
17	---	---	---	---	10.0	7.0	17.5	13.0	---	---	---	---
18	---	---	---	---	13.5	3.5	16.0	13.5	---	---	---	---
19	---	---	---	---	14.5	10.5	16.5	12.5	---	---	---	---
20	---	---	---	---	12.0	9.5	13.5	9.0	---	---	---	---
21	---	---	---	---	12.0	7.5	13.5	8.0	---	---	---	---
22	---	---	---	---	10.0	8.0	14.5	10.0	---	---	---	---
23	---	---	---	---	11.5	7.0	15.5	10.5	---	---	---	---
24	---	---	---	---	10.5	8.5	15.5	11.5	---	---	---	---
25	---	---	---	---	11.5	8.5	15.5	11.5	---	---	---	---
26	---	---	---	---	14.5	5.5	15.5	11.5	---	---	---	---
27	---	---	---	---	13.0	6.0	14.5	12.0	---	---	---	---
28	---	---	---	---	10.0	6.0	16.0	12.0	---	---	---	---
29	---	---	---	---	10.5	7.5	16.0	12.5	---	---	---	---
30	---	---	---	---	12.5	8.0	15.5	12.5	---	---	---	---
31	---	---	---	---	15.0	9.5	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

Water-quality stations at nongaged sites (with daily record)--Continued

PLATTE RIVER BASIN

395116104561300 SOUTH PLATTE RIVER AT 88TH ST AT COMMERCE CITY--Continued

OXYGEN, DISSOLVED (DO), MG/L, CALENDAR YEAR JANUARY TO DECEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
1	---	---	---	---	8.1	7.2	---	---	8.1	7.4	---	---
2	---	---	---	---	7.9	6.5	---	---	---	---	---	---
3	---	---	---	---	8.3	6.7	8.3	8.3	---	---	---	---
4	---	---	---	---	8.2	6.8	---	---	---	---	---	---
5	---	---	---	---	8.2	6.7	---	---	---	---	---	---
6	---	---	---	---	8.3	6.5	---	---	---	---	---	---
7	---	---	---	---	7.4	5.6	---	---	---	---	---	---
8	---	---	---	---	8.9	5.5	7.8	5.8	---	---	---	---
9	---	---	---	---	8.8	8.3	7.1	4.2	---	---	---	---
10	---	---	---	---	9.0	7.6	8.5	5.1	---	---	---	---
11	---	---	---	---	8.2	7.4	10.0	4.5	---	---	---	---
12	---	---	---	---	7.9	5.4	11.6	4.9	---	---	---	---
13	---	---	---	---	---	---	8.9	6.5	---	---	---	---
14	---	---	---	---	---	---	11.3	5.2	---	---	---	---
15	---	---	---	---	---	---	10.5	4.3	---	---	---	---
16	---	---	---	---	---	---	10.6	4.4	---	---	---	---
17	---	---	---	---	---	---	7.2	5.4	---	---	---	---
18	---	---	---	---	---	---	7.7	5.4	---	---	---	---
19	---	---	---	---	---	---	7.5	5.9	---	---	---	---
20	---	---	---	---	---	---	8.5	6.2	---	---	---	---
21	---	---	---	---	---	---	8.6	6.9	---	---	---	---
22	---	---	---	---	---	---	8.3	6.5	---	---	---	---
23	---	---	---	---	---	---	8.1	6.6	---	---	---	---
24	---	---	---	---	---	---	7.9	6.6	---	---	---	---
25	---	---	---	---	---	---	8.0	6.7	---	---	---	---
26	---	---	---	---	---	---	8.2	7.0	---	---	---	---
27	---	---	---	---	---	---	8.2	7.2	---	---	---	---
28	---	---	---	---	---	---	8.4	7.3	---	---	---	---
29	---	---	---	---	---	---	8.4	6.9	---	---	---	---
30	---	---	---	---	---	---	8.0	7.1	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

06720500 SOUTH PLATTE RIVER AT HENDERSON, CO.

PH (STANDARD UNITS), CALENDAR YEAR JANUARY TO DECEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
1	---	---	---	---	7.7	7.6	7.9	7.7	---	---	---	---
2	---	---	---	---	7.8	7.6	7.7	7.6	---	---	---	---
3	---	---	---	---	7.8	7.6	7.8	7.6	---	---	---	---
4	---	---	---	---	7.7	7.6	7.8	7.7	---	---	---	---
5	---	---	---	---	7.8	7.6	7.7	7.6	---	---	---	---
6	---	---	---	---	7.8	7.6	7.5	7.3	---	---	---	---
7	---	---	---	---	7.7	7.6	7.3	7.2	---	---	---	---
8	---	---	---	---	7.7	7.6	7.8	7.2	---	---	---	---
9	---	---	---	---	7.8	7.6	7.5	7.2	---	---	---	---
10	---	---	---	---	7.9	7.8	7.3	7.0	---	---	---	---
11	---	---	---	---	7.8	7.7	7.2	6.9	---	---	---	---
12	---	---	---	---	7.9	7.7	7.5	7.0	---	---	---	---
13	---	---	---	---	7.8	7.7	7.5	7.3	---	---	---	---
14	---	---	---	---	7.8	7.7	7.7	7.2	---	---	---	---
15	---	---	---	---	7.8	7.6	7.8	7.6	---	---	---	---
16	---	---	---	---	7.7	7.7	7.6	7.5	---	---	---	---
17	---	---	---	---	7.8	7.7	7.9	7.6	---	---	---	---
18	---	---	---	---	7.9	7.7	7.9	7.7	---	---	---	---
19	---	---	---	---	7.9	7.8	7.9	7.7	---	---	---	---
20	---	---	---	---	7.9	7.8	7.9	7.7	---	---	---	---
21	---	---	---	---	8.0	7.8	---	---	---	---	---	---
22	---	---	---	---	7.9	7.8	---	---	---	---	---	---
23	---	---	---	---	7.9	7.8	---	---	---	---	---	---
24	---	---	---	---	7.9	7.8	---	---	---	---	---	---
25	---	---	---	---	7.9	7.8	---	---	---	---	---	---
26	---	---	---	---	7.8	7.7	7.9	7.7	---	---	---	---
27	---	---	---	---	8.1	7.6	7.7	7.6	---	---	---	---
28	---	---	---	---	8.1	7.9	7.8	7.6	---	---	---	---
29	---	---	---	---	8.1	7.8	7.9	7.7	---	---	---	---
30	---	---	---	---	8.1	7.7	7.9	7.7	---	---	---	---
31	---	---	---	---	7.9	7.7	---	---	---	---	---	---
MONTH	---	---	---	---	8.1	7.6	---	---	---	---	---	---

PLATTE RIVER BASIN

06720500 SOUTH PLATTE RIVER AT HENDERSON, CO.--Continued

TEMPERATURE, WATER (DEG.C), CALENDAR YEAR JANUARY TO DECEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
1	---	---	---	---	9.5	6.5	14.0	10.0	---	---	---	---
2	---	---	---	---	11.0	8.0	12.5	9.0	---	---	---	---
3	---	---	---	---	11.5	9.0	13.5	9.5	---	---	---	---
4	---	---	---	---	12.0	9.5	13.0	10.0	---	---	---	---
5	---	---	---	---	13.0	9.5	11.5	8.5	---	---	---	---
6	---	---	---	---	13.5	10.0	13.5	9.0	---	---	---	---
7	---	---	---	---	14.5	10.5	15.0	10.0	---	---	---	---
8	---	---	---	---	12.0	7.0	15.5	11.0	---	---	---	---
9	---	---	---	---	7.5	5.5	15.5	12.0	---	---	---	---
10	---	---	---	---	10.0	7.0	15.5	11.0	---	---	---	---
11	---	---	---	---	10.5	8.5	13.5	11.5	---	---	---	---
12	---	---	---	---	13.0	9.0	11.5	6.5	---	---	---	---
13	---	---	---	---	14.0	10.5	9.0	6.0	---	---	---	---
14	---	---	---	---	14.0	11.0	14.0	8.5	---	---	---	---
15	--	---	---	---	12.0	10.5	17.0	11.5	---	---	---	---
16	---	---	---	---	10.5	7.0	17.5	12.0	---	---	---	---
17	---	---	---	---	8.5	7.0	16.5	12.0	---	---	---	---
18	---	---	---	---	12.0	8.0	16.0	12.5	---	---	---	---
19	---	---	---	---	13.5	10.0	16.0	12.0	---	---	---	---
20	---	---	---	---	11.5	9.5	11.5	8.5	---	---	---	---
21	---	---	---	---	11.5	8.0	---	---	---	---	---	---
22	---	---	---	---	9.5	7.5	---	---	---	---	---	---
23	---	---	---	---	10.0	6.5	---	---	---	---	---	---
24	---	---	---	---	9.0	7.5	---	---	---	---	---	---
25	---	---	---	---	10.5	7.5	---	---	---	---	---	---
26	---	---	---	---	13.5	8.5	14.5	12.5	---	---	---	---
27	---	---	---	---	11.0	6.0	14.5	12.0	---	---	---	---
28	---	--	---	---	8.0	5.0	15.0	12.0	---	---	---	---
29	---	---	---	---	10.0	7.0	15.5	12.5	---	---	---	---
30	---	---	---	---	10.5	7.0	15.0	13.0	---	---	---	---
31	---	---	---	---	14.5	9.0	---	---	---	---	---	---
MONTH	---	---	---	---	14.5	5.0	---	---	---	---	---	---

OXYGEN, DISSOLVED (DO), MG/L, CALENDAR YEAR JANUARY TO DECEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
1	---	---	---	---	8.5	7.7	9.2	6.1	---	---	---	---
2	---	---	---	---	8.6	7.2	9.4	6.8	---	---	---	---
3	---	---	---	---	8.6	6.8	8.3	6.4	---	---	---	---
4	---	---	---	---	8.6	6.5	8.6	6.4	---	---	---	---
5	---	---	---	---	8.8	6.8	9.0	6.8	---	---	---	---
6	---	---	---	---	8.8	6.8	9.2	6.1	---	---	---	---
7	---	---	---	---	8.7	6.2	9.0	5.4	---	---	---	---
8	---	---	---	---	8.7	6.3	9.6	5.3	---	---	---	---
9	---	---	---	---	9.0	7.9	9.5	5.2	---	---	---	---
10	---	---	---	---	9.0	7.6	9.9	5.4	---	---	---	---
11	---	---	---	---	8.7	7.5	8.8	5.3	---	---	---	---
12	---	---	---	---	8.5	5.9	8.9	5.8	---	---	---	---
13	---	---	---	---	7.7	5.8	8.9	7.6	---	---	---	---
14	---	---	---	---	8.3	5.9	8.7	6.1	---	---	---	---
15	---	---	---	---	8.1	6.3	8.4	5.2	---	---	---	---
16	---	---	---	---	8.3	6.8	8.2	5.0	---	---	---	---
17	---	---	---	---	8.3	7.7	8.1	5.2	---	---	---	---
18	---	---	---	---	8.5	6.8	8.2	5.7	---	---	---	---
19	---	---	---	---	8.4	6.8	8.2	6.3	---	---	---	---
20	---	---	---	---	8.2	6.9	8.5	6.9	---	---	---	---
21	---	---	---	---	9.1	7.0	---	---	---	---	---	---
22	---	---	---	---	8.5	7.0	---	---	---	---	---	---
23	---	---	---	---	9.0	7.2	---	---	---	---	---	---
24	---	---	---	---	8.7	7.1	---	---	---	---	---	---
25	---	---	---	---	9.0	7.4	---	---	---	---	---	---
26	---	---	---	---	8.7	6.3	7.0	6.2	---	---	---	---
27	---	---	---	---	9.2	6.3	6.8	4.5	---	---	---	---
28	---	---	---	---	9.4	8.1	8.3	6.3	---	---	---	---
29	---	---	---	---	9.0	7.8	7.7	6.7	---	---	---	---
30	---	---	---	---	9.2	6.7	7.3	6.7	---	---	---	---
31	---	---	---	---	9.0	6.2	---	---	---	---	---	---
MONTH	---	---	---	---	9.4	5.8	---	---	---	---	---	---

DISCHARGE AND SELECTED WATER-QUALITY DATA AT SITES ON SPRING CREEK AT FORT COLLINS

PLATTE RIVER BASIN

Listed below are data for instantaneous discharge and selected water-quality data for three sites on Spring Creek at Fort Collins for the period Oct. 22, 1986 to Oct. 7, 1987.

WATER QUALITY DATA, OCTOBER 1986 TO OCTOBER 1987

400908105054100 - SPRING CREEK BELOW SHIELDS ST. AT FORT COLLINS, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT 22...	1200	0.96	625	8.0	12.0	9.4	K89	310
NOV 19...	1345	2.9	810	7.4	9.0	--	260	360
DEC 16...	0930	2.5	790	8.0	0.0	11.3	K80	360
JAN 13...	0930	1.8	740	8.0	3.0	11.8	250	350
MAR 03...	0930	2.3	598	7.9	5.0	10.6	220	340
31...	0900	5.3	680	8.4	4.0	12.9	160	370
APR 29...	1135	1.8	725	7.8	16.5	9.9	120	340
JUN 03...	0930	1.1	675	8.0	15.0	10.0	340	340
30...	1530	1.2	625	8.1	19.5	8.5	520	320
JUL 22...	0845	0.80	690	8.0	17.0	8.6	--	330
AUG 26...	0935	1.8	600	7.8	17.0	--	430	310
OCT 07...	1305	2.6	660	8.2	15.0	9.4	120	340

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)
OCT 22...	65	23	285	4	--	--	--
NOV 19...	100	27	475	55	--	--	--
DEC 16...	100	26	392	85	--	--	--
JAN 13...	97	25	457	105	--	--	--
MAR 03...	95	24	456	24	--	--	--
31...	100	28	499	11	--	--	--
APR 29...	93	27	457	2	--	--	--
JUN 03...	93	25	419	<1	--	--	--
30...	87	24	395	<1	--	--	--
JUL 22...	92	25	422	6	2.00	0.30	2.3
AUG 26...	85	23	381	3	--	--	--
OCT 07...	96	25	396	3	--	--	--

K BASED ON NON-IDEAL COLONY COUNT.

DISCHARGE AND SELECTED WATER-QUALITY DATA AT SITES ON SPRING CREEK AT FORT COLLINS--Continued

PLATTE RIVER BASIN

WATER QUALITY DATA, OCTOBER 1986 TO OCTOBER 1987

400908105054100 - SPRING CREEK BELOW SHIELDS ST. AT FORT COLLINS, CO

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	LEAD, DIS-SOLVED (UG/L AS PB)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT								
22...	1200	--	--	--	<10	--	--	--
NOV								
19...	1345	--	--	--	<10	<5	--	--
DEC								
16...	0930	--	--	--	<10	<5	--	--
JAN								
13...	0930	--	--	--	<10	<5	--	--
MAR								
03...	0930	--	--	--	<10	<5	--	--
31...	0900	--	--	--	<10	<5	--	--
APR								
29...	1135	--	--	--	<10	<5	--	--
JUN								
03...	0930	--	--	--	<10	<5	--	--
30...	1530	--	--	--	<10	<5	--	--
JUL								
22...	0845	<1	<4	<10	<10	<5	<1	3
AUG								
26...	0935	--	--	--	<10	<5	--	--
OCT								
07...	1305	--	--	--	<10	<5	--	--

403343105042900 - SPRING CR BELOW COLLEGE ST. AT FORT COLLINS, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT								
22...	0915	4.1	700	8.0	12.0	7.6	460	320
NOV								
19...	1520	4.0	850	7.6	9.0	--	240	360
DEC								
16...	1145	3.9	790	7.3	2.5	10.6	370	350
JAN								
13...	1130	3.0	760	8.1	5.5	11.7	580	360
MAR								
03...	1100	3.9	589	8.1	7.0	10.4	250	300
31...	1115	4.4	685	8.6	8.0	12.1	180	390
APR								
29...	1255	3.2	760	8.4	17.5	12.2	230	310
JUN								
03...	1130	2.7	650	8.3	16.5	8.8	940	310
JUL								
01...	0850	1.7	590	7.9	15.0	7.3	780	280
22...	1040	1.2	690	8.1	17.5	8.5	--	310
AUG								
26...	1120	1.7	560	7.9	17.0	--	K>1200	240
OCT								
07...	1415	0.64	640	8.2	15.0	8.5	K1300	310

K BASED ON NON-IDEAL COLONY COUNT.

PLATTE RIVER BASIN

WATER-QUALITY DATA, OCTOBER 1986 TO OCTOBER 1987

403343105042900 - SPRING CREEK BELOW COLLEGE ST. AT FORT COLLINS, CO

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)
OCT								
22...	87	25	304	12	3.30	1.1	4.4	0.02
NOV								
19...	99	27	462	20	3.20	0.6	3.8	0.03
DEC								
16...	96	26	464	30	3.10	0.5	3.6	0.03
JAN								
13...	99	27	449	23	3.10	0.6	3.7	0.02
MAR								
03...	84	22	420	18	2.60	0.6	3.2	0.03
31...	110	29	486	12	3.10	0.8	3.9	0.02
APR								
29...	81	27	440	6	2.30	0.5	2.8	<0.01
JUN								
03...	83	24	416	14	2.10	1.3	3.4	<0.01
JUL								
01...	75	22	382	8	2.50	1.4	3.9	0.02
22...	81	26	433	2	3.00	1.3	4.3	0.02
AUG								
26...	65	18	334	6	2.20	2.2	4.4	0.03
OCT								
07...	85	24	418	3	2.90	1.3	4.2	0.02

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MERCURY DIS-SOLVED (UG/L AS HG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT										
22...	0915	<1	<1	<10	<5	--	<5	--	<1	7
NOV										
19...	1520	<1	<1	10	<10	720	<5	<0.1	<1	<3
DEC										
16...	1145	<1	1	<10	<10	970	<5	--	<1	<3
JAN										
13...	1130	1	<1	<10	<10	520	<5	--	<1	7
MAR										
03...	1100	<1	<1	<10	<10	20	<5	--	<1	6
31...	1115	<1	<1	<10	<10	400	<5	<0.1	<1	15
APR										
29...	1255	<1	<1	<10	<10	270	<5	--	<1	4
JUN										
03...	1130	<1	<1	<10	<10	290	<5	--	<1	<3
JUL										
01...	0850	<1	<1	<10	<10	400	<5	<0.1	<1	9
22...	1040	<1	<1	20	<10	160	<5	--	<1	11
AUG										
26...	1120	1	1	<10	<10	590	<5	<0.1	<1	11
OCT										
07...	1415	1	<1	<10	<10	490	<5	--	1	7

PLATTE RIVER BASIN

WATER-QUALITY DATA, OCTOBER 1986 TO OCTOBER 1987

403355105032200 - SPRING CR BELOW WELCH ST. AT FORT COLLINS, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT								
22...	1045	4.8	710	8.20	12.0	9.2	450	330
NOV								
20...	0840	5.5	750	7.80	5.5	--	100	370
DEC								
16...	1400	4.7	760	7.80	4.0	12.6	140	350
JAN								
13...	1320	3.9	720	8.30	8.0	12.6	250	350
MAR								
03...	1335	2.3	598	8.30	10.0	10.6	160	300
31...	1330	5.3	630	8.70	12.0	13.2	260	370
APR								
29...	1430	3.6	675	8.50	18.5	10.8	160	310
JUN								
03...	1425	3.9	650	8.40	19.0	8.7	K220	320
JUL								
01...	1110	3.3	610	8.10	17.5	8.4	270	290
22...	1210	2.4	675	8.30	20.0	8.5	--	320
AUG								
26...	1305	1.7	520	7.90	19.0	--	K>1200	250
OCT								
07...	1535	3.4	650	8.40	16.0	9.1	440	330

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)
OCT								
22...	88	26	364	9	3.30	1.0	4.3	0.03
NOV								
20...	100	28	464	17	3.10	0.7	3.8	0.02
DEC								
16...	94	28	415	9	3.20	1.9	5.1	0.02
JAN								
13...	93	28	442	19	3.20	0.3	3.5	0.02
MAR								
03...	83	23	420	17	2.70	1.7	4.4	0.03
31...	100	30	439	9	3.00	1.0	4.0	0.02
APR								
29...	78	28	430	8	2.30	0.6	2.9	<0.01
JUN								
03...	85	26	405	17	2.40	0.9	3.3	0.01
JUL								
01...	79	23	380	<1	2.60	1.4	4.0	0.02
22...	82	27	416	<1	2.80	0.7	3.5	0.01
AUG								
26...	68	20	302	2	2.30	3.8	6.1	0.02
OCT								
07...	86	27	421	1	3.00	1.1	4.1	0.02

K BASED ON NON-IDEAL COLONY COUNT.

PLATTE RIVER BASIN

WATER-QUALITY DATA, OCTOBER 1986 TO OCTOBER 1987

403355105032200 - SPRING CREEK BELOW WELCH ST. AT FORT COLLINS, CO

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MERCURY DIS-SOLVED (UG/L AS HG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 22...	1045	<1	<1	<10	<1	--	10	--	<1	6
NOV 20...	0840	<1	<1	<10	<10	740	<5	<0.1	<1	6
DEC 16...	1400	<1	<1	10	<10	430	<5	--	<1	4
JAN 13...	1320	1	<1	<10	<10	320	<5	--	<1	7
MAR 03...	1335	<1	<1	<10	<10	30	<5	--	1	4
31...	1330	<1	<1	<10	<10	230	<5	0.1	<1	11
APR 29...	1430	<1	<1	<10	<10	200	<5	--	<1	4
JUN 03...	1425	<1	<1	<10	<10	400	<5	--	<1	<3
JUL 01...	1110	<1	<1	<10	<10	140	<5	<0.1	<1	7
22...	1210	<1	<1	<10	<10	130	<5	--	<1	5
AUG 26...	1305	1	<1	10	<10	410	<5	<0.1	<1	27
OCT 07...	1535	1	<1	<10	<10	190	<5	--	<1	4

DISCHARGE AND SELECTED WATER-QUALITY DATA AT SITES ON UPPER FOUNTAIN AND MONUMENT CREEKS

ARKANSAS RIVER BASIN

Listed below are data for instantaneous discharge and selected water-quality data for sites on the upper Fountain and Monument Creeks that were done on a synoptic sampling.

PERIOD OF RECORD.--October 1985 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

385137104551001 - Fountain Creek above Ruxton Creek at Manitou Springs, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAR						
04...	0940	6.0	344	7.6	2.0	11.1

385716105014301 - Fountain Creek above Crystola Creek at Crystola, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BOD OXYGEN DEMAND, BIOCHEM CARBON. 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
MAR												
04...	0945	0.29	610	7.8	5.0	6.0	3.0	<130	K12	38	0.83	3.60

384940104495901 - Fountain Creek above Monument Creek at Colorado Springs, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BOD OXYGEN DEMAND, BIOCHEM CARBON. 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
MAR												
04...	1000	4.0	979	8.1	3.0	11.4	1.0	39	88	38	0.08	2.20

385537105001401 - Fountain Creek below Green Mountain Falls, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BOD OXYGEN DEMAND, BIOCHEM CARBON. 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
MAR												
04...	1030	3.4	291	8.3	2.5	10.4	0.8	K23	K44	14	0.06	1.70

385129104544101 - Fountain Creek at El Paso Blvd at Manitou Springs, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAR						
04...	1040	8.9	395	7.5	3.0	10.6

385347104581601 - Fountain Creek above Cascade Creek at Cascade, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BOD OXYGEN DEMAND, BIOCHEM CARBON. 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
MAR												
04...	1100	8.0	270	8.2	8.0	11.3	1.1	K7	K50	12	0.08	1.60

K BASED ON NON-IDEAL COLONY COUNT.

ARKANSAS RIVER BASIN

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

385129104540901 - Fountain Creek at Mayfair Ave at Manitou Springs, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAR 04...	1140	11	392	8.0	4.5	10.4

385715105014401 - Crystola Creek at the mouth at Crystola, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)
MAR 04...	1200	0.29	255	8.2	2.0

385129104532701 - Fountain Creek at Beckers Lane at Manitou Springs, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAR 04...	1240	14	380	8.3	5.5	10.1

385346104581601 - Cascade Creek at the mouth at Cascade, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAR 04...	1245	1.6	90	7.1	0.0	11.3

385813105022201 - Fountain Creek below Woodland Park UWTF, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BOD OXYGEN DEMAND, BIOCHEM CARBON. 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
MAR 04...	1300	0.36	660	8.1	4.0	9.8	>41	3800	2600	40	31.0	1.10

385047104515501 - Fountain Creek at Twenty-sixth Street at Colorado Springs, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAR 04...	1340	10	361	8.2	8.0	9.0

385509104592501 - Fountain Creek at Chipita Park, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BOD OXYGEN DEMAND, BIOCHEM CARBON. 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
MAR 04...	1345	5.3	285	7.8	5.0	10.6	1.1	<3	230	19	0.12	1.60

K BASED ON NON-IDEAL COLONY COUNT.

DISCHARGE AND SELECTED WATER-QUALITY DATA AT SITES ON UPPER FOUNTAIN AND MONUMENT CREEKS--Continued

ARKANSAS RIVER BASIN

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

385600105004301 - Fountain Creek above Catamount Creek at Greenn Mountain Falls, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BOD OXYGEN DEMAND, BIOCHEM CARBON. 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
MAR												
04...	1415	1.7	496	8.6	7.5	9.4	1.5	60	9000	27	0.11	3.30

385030104512801 - Fountain Creek at Twenty-first Street at Colorado Springs, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAR						
04...	1440	15	347	8.2	8.5	9.0

385130104534601 - Sutherland Creek at the mouth at Manitou Springs, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAR						
04...	1520	1.2	208	8.0	3.5	11.3

385318104574301 - French Creek at the mouth below Cascade, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAR						
04...	1540	1.0	102	7.0	0.0	11.0

385007104505501 - Fountain Creek at Fourteenth Street at Colorado Springs, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAR						
04...	1540	20	392	8.3	8.5	9.2

385319104574501 - Fountain Creek above French Creek below Cascade, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BOD OXYGEN DEMAND, BIOCHEM CARBON. 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
MAR												
04...	1615	8.9	278	7.7	4.0	9.8	0.9	K57	210	20	0.09	1.50

384947104502401 - Fountain Creek at Eighth Street at Colorado Springs, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAR						
04...	1645	26	426	8.2	8.0	9.3

K BASED ON NON-IDEAL COLONY COUNT.

DISCHARGE AND SELECTED WATER-QUALITY DATA AT SITES ON UPPER FOUNTAIN AND MONUMENT CREEKS--Continued

ARKANSAS RIVER BASIN

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

385130104553101 - Ruxton Creek near the mouth at Manitou Springs, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAR						
04...	1655	0.32	404	8.2	2.0	11.5

385556105004001 - Crystal Creek at the mouth at Green Mountain Falls, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAR						
04...	1745	5.4	286	8.2	3.0	10.2

385205104552501 - Fountain Creek above Manitou Springs, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BOD OXYGEN DEMAND, BIOCHEM CARBON. 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
MAR												
04...	1800	10	323	8.2	4.0	10.6	1.5	K32	140	25	0.08	1.40

385620105005401 - Fountain Creek above Green Mountain Falls, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
MAR											
04...	1825	1.6	501	8.6	2.0	10.0	K1	50	26	0.14	3.30

07104900 - Monument Creek at Cache La Poudre Street at Colorado Springs, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAR						
05...	0900	21	580	8.1	1.0	11.1

390300104520701 - Beaver Creek at the mouth below Monument, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAR						
05...	0905	0.26	182	8.0	0.0	12.6

384943104495801 - Monument Creek at the mouth at Colorado Springs, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BOD OXYGEN DEMAND, BIOCHEM CARBON. 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
MAR											
05...	0930	24	8.2	2.5	11.0	0.5	K53	260	40	0.65	2.80

K BASED ON NON-IDEAL COLONY COUNT.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

385858104494301 - Monument Creek at USAF Academy Waste Water Treatment Plant, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BOD OXYGEN DEMAND, BIOCHEM CARBON. 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
MAR 05...	0945	12	360	7.6	0.5	11.5	5.1	170	730	22	5.70	1.10

385202104493901 - Monument Creek above Monument Valley Park Colorado Springs, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAR 05...	0950	21	546	8.3	2.0	10.8

385351104490901 - Monument Creek at Garden of the Gods Road, Colorado Springs, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAR 05...	1040	31	476	8.2	4.0	10.2

390425104522701 - Monument Creek at Arnold Road below Monument, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BOD OXYGEN DEMAND, BIOCHEM CARBON. 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
MAR 05...	1050	3.4	230	8.1	4.5	10.4	0.7	K4	K18	14	0.13	0.20

385302104502201 - Unnamed Tributary above Fillmore Street at Colorado Springs, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAR 05...	1120	0.66	1200	8.30	9.0	8.9

390036104500301 - Monument Creek below Smith Creek at USAF Academy, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BOD OXYGEN DEMAND, BIOCHEM CARBON. 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
MAR 05...	1145	14	288	7.4	2.0	11.0	0.9	K1	42	15	2.00	0.80

385321104493301 - Douglas Creek at the mouth at Colorado Springs, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAR 05...	1200	2.1	374	8.4	10.5	8.7

K BASED ON NON-IDEAL COLONY COUNT.

ARKANSAS RIVER BASIN

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

385234104494901 - Monument Creek at Fillmore St at Colorado Springs, CO

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	BOD OXYGEN DEMAND, BIOCHEM CARBON. 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CHLORIDE, DISSOLVED (MG/L AS CL)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)
MAR 05...	1200	52	8.1	9.0	9.6	2.0	<33	600	33	0.86	3.00

385320104452401 - Templeton Gap Floodway at the mouth at Colorado Springs, CO

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
MAR 05...	1240	3.3	854	8.5	11.0	8.9

390150104503801 - Unnamed Tributary above Smith Creek at USAF Academy, CO

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
MAR 05...	1300	0.50	431	8.3	4.5	10.0

385429104491901 - Monument Creek below Pikeview, CO

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
MAR 05...	1330	59	432	8.3	10.0	8.8

390115104502301 - Smith Creek at the mouth at USAF Academy, CO

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	BOD OXYGEN DEMAND, BIOCHEM CARBON. 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CHLORIDE, DISSOLVED (MG/L AS CL)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)
MAR 05...	1400	0.86	295	7.5	7.0	10.0	1.0	K2	120	17	0.39	0.90

385559104485601 - Monument Creek at Woodmen Valley Road above Colorado Springs, CO

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
MAR 05...	1410	35	321	8.2	9.0	9.0

385618104484401 - Pine Creek near the mouth above Colorado Springs, CO

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
MAR 05...	1455	18	240	8.20	7.0	9.6

K BASED ON NON-IDEAL COLONY COUNT.

ARKANSAS RIVER BASIN

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

385708104492901 - Kettle Creek near the mouth above Colorado Springs,

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAR						
05...	1535	3.0	304	8.0	6.5	9.6

390324104514501 - Monument Creek at Baptist Road below Monument, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BOD OXYGEN DEMAND, BIOCHEM CARBON. 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
MAR												
05...	1545	6.2	243	8.3	8.0	9.2	3.4	K9	120	16	3.40	0.50

390107104552801 - Monument Creek above Palmer Lake, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BOD OXYGEN DEMAND, BIOCHEM CARBON. 5 DAY (MG/L)	COLI-FORM, FECAL. 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
MAR												
05...	1600	0.97	112	8.3	1.0	10.5	0.3	K1	64	0.90	0.04	0.20

385729104500401 - West Monument Creek at the mouth at USAF Academy,

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAR						
05...	1600	0.04	259	7.4	4.5	9.0

385732104500301 - Monument Creek above West Monument Creek at USAF Academy, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BOD OXYGEN DEMAND, BIOCHEM CARBON. 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
MAR												
05...	1645	19	352	7.9	9.0	9.0	4.1	K19	160	17	4.30	1.20

390413104522601 - Palmer Lake-Monument WWTF outfall below Monument, CO

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BOD OXYGEN DEMAND, BIOCHEM CARBON. 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
MAR												
05...	1700	0.79	625	8.1	2.0	10.8	15	K22	580	37	23.0	0.20

K BASED ON NON-IDEAL COLONY COUNT.

06614800 MICHIGAN RIVER NEAR CAMERON PASS, CO. (LAT 40 29 46N LONG 105 51 52W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1986					MAY 1987				
17...	1130	0.92	40	2.5	21...	1120	10	30	1.0
NOV					JUN				
20...	1445	0.76	44	1.0	14...	1315	20	38	8.0
DEC					JUL				
29...	1445	0.31	46	0.5	30...	1145	2.6	50	12.0
FEB 1987					SEP				
19...	1600	0.29	55	0.0	01...	1640	1.3	46	8.5
MAR									
25...	1450	0.25	60	0.5					

06696000 SOUTH PLATTE RIVER NEAR LAKE GEORGE, CO. (LAT 38 54 19N LONG 105 28 22W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1986					JAN 1987				
07...	1130	107	--	1.0	13...	1630	54	--	2.5
23...	1230	256	--	8.0	27...	1800	57	--	2.0
NOV					FEB				
20...	0830	28	--	2.5	10...	0940	65	--	2.0
DEC									
02...	1630	58	--	5.0					
15...	1545	69	--	2.5					
30...	0845	52	--	1.5					

06697200 FRENCH CREEK NEAR JEFFERSON,COLORADO (LAT 39 23 21N LONG 105 38 07W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1986					APR 1987				
07...	1050	2.9	<50	7.0	07...	1015	1.3	40	0.0
NOV					30...	1815	11	45	0.0
14...	1645	2.0	<50	0.0	JUN				
DEC					02...	1455	21	120	6.0
16...	1630	4.2	<50	0.0	JUL				
FEB 1987					14...	1650	12	60	8.0
24...	1550	1.8	<50	0.0	AUG				
					17...	1055	5.0	50	5.0

0669[illegible]000 ROCK CREEK NEAR JEFFERSON, COLORADO (LAT 39 17 29N LONG 105 41 43W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1986					APR 1987				
07...	1525	4.5	85	8.0	07...	1405	5.0	115	0.0
NOV					30...	1650	17	87	0.0
14...	1450	3.6	90	0.0	JUN				
DEC					02...	1350	44	160	6.0
16...	1410	5.7	80	0.0	JUL				
FEB 1987					14...	1425	14	150	7.0
24...	1220	1.2	<50	0.0	AUG				
					17...	1440	4.4	65	7.0

06699005 TARRYALL CREEK BELOW ROCK C NEAR JEFFERSON, CO. (LAT 39 17 13N LONG 105 41 43

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1986					APR 1987				
07...	1350	31	180	9.0	07...	1640	16	90	0.0
NOV					30...	1520	127	200	1.0
14...	1040	17	85	0.0	JUN				
DEC					02...	1145	107	180	7.0
16...	0920	20	130	0.0	JUL				
FEB 1987					14...	1225	77	240	7.0
24...	1415	8.2	60	0.0	AUG				
					17...	1245	34	60	6.0

06701500 SOUTH PLATTE RIVER BELOW CHEESMAN LAKE, CO. (LAT 39 12 33N LONG 105 16 02W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1986					JAN 1987				
01...	1230	151	--	14.0	13...	1030	33	--	3.0
30...	1330	59	--	10.5	27...	1355	26	--	3.5
DEC					FEB				
02...	1350	95	--	6.0	09...	1640	58	--	3.0
15...	1315	82	--	5.0					
29...	1610	53	--	4.0					

06706000 NF SOUTH PLATTE R BELOW GENEVA C, AT GRANT, CO. (LAT 39 27 26N LONG 105 39 29

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1986				
31...	1020	37	--	0.0
NOV				
21...	1140	42	--	4.5
DEC				
03...	1410	41	--	3.0
17...	1125	99	--	4.0
18...	1015	32	--	0.0
31...	0852	88	--	3.0
JAN 1987				
15...	1047	92	--	3.0
28...	1505	88	--	4.0
FEB				
11...	1035	89	--	4.5

06708750 EAST PLUM CR AT CASTLE ROCK, COLO. (LAT 39 23 04N LONG 104 51 42W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1986				
01...	1130	2.1	373	16.0
14...	1135	4.9	320	12.0
NOV				
19...	0930	4.6	308	6.0
DEC				
16...	1200	6.8	259	--
FEB 1987				
18...	0840	6.0	285	1.0
MAR				
17...	1435	17	246	4.0
APR				
14...	1505	20	247	15.5
MAY 1987				
12...	1230	149	107	17.0
JUN				
09...	1315	73	172	20.0
JUL				
15...	1425	11	252	27.0
AUG				
17...	1230	2.0	322	25.0
SEP				
21...	1225	6.1	305	--

06709500 PLUM CREEK NEAR LOUVIERS, CO. (LAT 39 29 04N LONG 105 00 07W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1986				
01...	1340	4.4	385	19.0
14...	1400	12	392	16.0
28...	1350	9.1	400	13.5
NOV				
19...	1215	16	406	9.5
DEC				
03...	1620	16	357	1.0
16...	1415	19	169	--
JAN 1987				
22...	1105	11	380	1.0
FEB				
03...	1520	29	345	1.5
18...	1405	22	323	5.0
MAR				
02...	0920	14	374	1.5
17...	1200	42	313	4.0
APR 1987				
08...	1450	42	307	19.5
14...	1230	67	265	13.5
MAY				
12...	1009	676	218	12.0
JUN				
09...	1100	156	204	17.0
JUL				
01...	1435	75	250	28.0
15...	1210	30	270	28.0
30...	1540	5.6	320	27.0
AUG				
17...	1010	1.7	325	20.0
SEP				
04...	1100	11	360	21.5
21...	1010	14	330	15.0

06709530 PLUM CREEK AT TITAN RD NR LOUVIERS, CO (LAT 39 30 27N LONG 105 01 23W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1986				
01...	1510	1.1	436	14.0
14...	1540	12	406	9.5
NOV				
19...	1350	14	416	5.0
DEC				
16...	0830	14	226	0.0
FEB 1987				
18...	1505	22	356	4.0
MAR				
17...	0925	39	318	3.0
APR				
14...	0930	62	270	2.0
MAY 1987				
18...	1230	274	155	19.0
JUN				
09...	0850	123	220	15.5
JUL				
15...	0940	31	268	21.0
AUG				
17...	0820	0.22	330	19.5
SEP				
21...	0820	12	300	11.0

06710385 Bear Cr Ab Evergreen (LAT 39 37 58N LONG 105 19 59W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1986				
29...	1410	22	70	5.0
DEC				
01...	1425	23	83	1.0
FEB 1987				
02...	1520	13	95	0.5
MAR				
03...	0850	13	88	0.0
APR				
07...	1500	35	102	5.0
MAY 1987				
15...	1250	250	55	9.0
JUN				
02...	1120	152	60	8.0
JUL				
13...	1415	77	60	14.0
AUG				
06...	0930	41	55	13.5
SEP				
02...	1007	43	58	11.0

06710605 BEAR C AB BEAR C LK NR MORRISON CO (LAT 39 39 08N LONG 105 10 23W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1986					MAY 1987				
29...	0905	20	170	5.0	01...	1432	306	108	9.0
DEC					JUN				
01...	1140	24	173	1.0	03...	1535	270	120	14.5
FEB 1987					29...	1150	183	120	13.0
02...	1145	19	270	3.0	AUG				
MAR					05...	1150	9.8	160	20.0
03...	1110	21	323	3.0	SEP				
APR					04...	1140	37	180	14.0
06...	1455	39	270	9.0					

06711040 TURKEY C AB BEAR C LK NR MORRISON CO (LAT 39 38 27N LONG 105 09 34W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1986					MAY 1987				
29...	1035	0.89	1250	10.0	04...	1002	90	194	5.0
DEC					12...	1535	85	160	12.0
04...	1515	3.1	595	2.0	JUN				
FEB 1987					03...	1315	37	240	14.0
04...	1420	3.0	725	4.0	30...	1436	26	330	14.0
MAR					AUG				
03...	1310	4.0	698	5.5	03...	1555	23	440	20.5
APR					SEP				
07...	1140	24	380	4.0	02...	1425	1.0	1090	17.5

06712000 CHERRY CREEK NEAR FRANKTOWN, CO. (LAT 39 21 21N LONG 104 45 46W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1986					APR 1987				
01...	0945	3.7	220	7.0	08...	1045	24	240	5.5
14...	0920	6.2	230	4.0	20...	1020	25	200	4.0
28...	0925	6.4	250	6.5	MAY				
NOV					12...	1040	23	231	13.0
17...	1450	9.8	225	4.5	18...	1010	26	230	13.0
DEC					JUN				
03...	1050	3.1	214	0.0	01...	1400	16	240	20.5
15...	1440	6.9	242	0.0	10...	1350	18	--	21.0
JAN 1987					29...	1005	8.1	233	15.5
20...	1240	6.5	223	0.0	JUL				
FEB					14...	1220	7.0	227	20.0
03...	0955	10	230	0.5	AUG				
18...	1100	17	216	1.5	03...	1055	2.7	208	19.0
MAR					19...	1215	2.9	228	20.5
02...	1305	23	216	0.0	SEP				
20...	1133	31	225	4.5	23...	1155	7.5	240	13.0

06713000 CHERRY CREEK BELOW CHERRY CREEK LAKE, CO. (LAT 39 39 12N LONG 104 51 41W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
FEB 1987					JUN 1987				
13...	1130	47	689	5.5	08...	0846	85	590	17.0
25...	0945	43	--	3.5	AUG				
APR					26...	0915	88	585	20.0
13...	0912	47	630	6.5					

06713300 CHERRY CREEK AT GLENDALE, CO (LAT 39 42 22N LONG 104 56 15W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1986					MAY 1987				
21...	1145	8.0	1470	11.0	11...	1030	13	1010	18.0
NOV					JUN				
20...	1025	5.3	1470	8.0	08...	1214	103	670	18.0
DEC					JUL				
23...	0930	4.2	1460	1.5	13...	1230	25	760	22.0
FEB 1987					AUG				
13...	1426	40	772	9.5	18...	0900	10	1020	15.5
25...	1125	53	792	4.0	SEP				
MAR					22...	1015	26	830	13.0
16...	0955	33	840	6.0					
APR									
13...	1203	70	620	7.5					

06713500 CHERRY CREEK AT DENVER, CO. (LAT 39 44 58N LONG 105 00 08W)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
OCT 1986					MAY 1987				
21...	1335	16	1280	13.5	11...	1250	21	960	22.0
NOV					JUN				
20...	1230	13	1290	13.0	08...	1416	105	680	19.0
DEC					JUL				
23...	1120	14	1180	7.5	13...	1445	34	860	25.0
FEB 1987					AUG				
25...	1315	54	833	6.0	18...	1130	20	990	21.0
MAR					SEP				
16...	1240	64	660	8.0	22...	1220	34	870	18.0
APR									
13...	1410	85	750	11.0					

06721500 NORTH ST. VRAIN CREEK NEAR ALLENS PARK, CO. (LAT 40 13 07N LONG 105 31 57W)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
OCT 1986					MAY 1987				
22...	1100	30	<50	4.0	15...	1034	218	16	6.0
NOV					JUN				
18...	1000	17	<50	0.0	12...	1127	194	40	10.0
DEC					JUL				
29...	1218	8.1	<50	0.0	17...	1015	72	16	12.0
FEB 1987					AUG				
26...	1030	6.5	50	0.0	21...	0900	28	--	12.0
MAR					SEP				
19...	1026	7.1	27	3.0	25...	1000	21	22	7.0
APR									
17...	1000	14	28	3.0					

06725450 ST. VRAIN CREEK BELOW LONGMONT, CO. (LAT 40 09 29N LONG 105 00 53W)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
OCT 1986					JUN 1987				
02...	0850	79	1140	12.5	04...	1009	107	890	16.0
NOV					JUL				
21...	1400	93	950	8.0	14...	1430	108	1100	24.0
DEC					AUG				
18...	1315	76	890	4.0	07...	1005	131	1420	21.0
MAR 1987					SEP				
06...	1115	76	--	6.5	03...	1230	87	1100	20.5
APR									
03...	1415	98	120	12.5					
28...	1350	304	360	13.5					

06726900 BUMMERS GULCH NEAR EL VADO, CO. (LAT 40 00 42N LONG 105 20 53W)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
OCT 1986					JUN 1987				
02...	1222	0.12	525	10.0	05...	0915	1.2	360	11.0
NOV					JUL				
17...	1030	0.33	469	6.0	01...	0846	2.0	376	11.0
DEC					AUG				
22...	0911	0.25	--	0.0	04...	1035	0.60	421	12.0
MAR 1987					SEP				
05...	1150	0.61	476	5.0	01...	1015	0.44	390	11.5
APR									
03...	0824	1.3	385	1.0					
30...	1000	2.1	325	8.0					

06727500 FOURMILE CREEK AT ORODELL, CO. (LAT 40 01 06N LONG 105 19 33W)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
OCT 1986					JUN 1987				
02...	1400	0.87	250	12.0	05...	1045	13	135	12.0
NOV					JUL				
17...	1325	2.1	349	6.0	15...	1130	3.7	280	15.5
DEC					AUG				
22...	1027	1.3	--	0.0	04...	1230	1.5	307	18.0
MAR 1987					SEP				
05...	1243	3.6	370	2.5	01...	1245	0.91	300	15.0
APR									
03...	0930	7.5	330	1.0					
30...	1115	51	--	8.0					

06730200 BOULDER CR AT NORTH 75TH ST NR BOULDER (LAT 40 03 06N LONG 105 10 42W)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
DEC 1986					JUN 1987				
22...	1155	45	--	5.0	04...	1325	120	240	17.5
MAR 1987					JUL				
06...	1300	60	--	9.0	15...	1520	152	340	22.5
APR					AUG				
03...	1120	52	630	10.0	04...	1505	192	362	22.5
MAY					SEP				
01...	1350	158	195	11.0	03...	1520	56	538	23.0

06746095 JOE WRIGHT CREEK ABOVE JOE WRIGHT RESERVOIR, CO. (LAT 40 32 24N LONG 105 52 56

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
OCT 1986					MAY 1987				
16...	1650	4.3	52	4.5	21...	1215	44	40	2.0
NOV					JUN				
21...	1030	1.7	62	0.0	14...	1430	24	40	8.0
DEC					JUL				
30...	1150	0.52	68	0.0	30...	1315	12	60	16.0
FEB 1987					SEP				
20...	1100	0.41	80	0.0	01...	1330	1.5	55	15.5
MAR									
26...	1100	0.35	82	0.0					

06746110 JOE WRIGHT CREEK BELOW JOE WRIGHT RESERVOIR, CO. (LAT 40 33 43N LONG 105 52 09

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
OCT 1986					MAY 1987				
16...	1405	1.1	36	0.5	21...	1315	4.8	40	2.0
NOV					JUN				
21...	1215	0.50	42	0.0	14...	1530	48	43	8.0
DEC					JUL				
30...	1440	0.41	46	0.0	30...	1420	34	60	15.0
FEB 1987					SEP				
20...	1400	0.37	55	0.0	02...	0930	41	44	7.5
MAR					10...	1145	39	55	10.0
26...	1345	0.40	83	0.0					

06759100 BIJOU CREEK NEAR FT. MORGAN, CO. (LAT 40 16 58N LONG 103 52 30W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
OCT 1986					APR 1987				
16...	1030	28	1550	11.5	22...	0945	13	1650	13.0
NOV					MAY				
26...	1020	11	1550	12.0	20...	0925	17	1500	14.5
DEC					JUN				
31...	1005	11	1600	10.0	30...	0935	14	1650	15.5
JAN 1987					JUL				
28...	1030	12	1550	11.0	29...	0940	13	1600	17.5
FEB					AUG				
25...	0930	12	1550	9.0	27...	0920	12	1600	14.0
MAR					SEP				
26...	0920	11	1650	12.0	24...	0820	11	1650	14.0

07099215 TURKEY CREEK NEAR FOUNTAIN COLO (LAT 38 36 42N LONG 104 53 39W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
OCT 1986					MAY 1987				
15...	1210	0.08	332	13.5	20...	1540	8.0	200	10.0
NOV					JUN				
17...	1440	0.06	345	14.0	23...	1420	1.6	210	22.0
MAR 1987					JUL				
09...	1445	3.0	200	3.0	14...	1500	1.5	245	20.0
20...	1040	2.4	253	4.0	AUG				
APR					17...	1600	0.26	400	16.0
23...	1755	15	195	10.0					

07103800 WEST MONUMENT CREEK AT AIR FORCE ACADEMY, CO. (LAT 38 58 14N LONG 104 54 08W

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
OCT 1986					JUN 1987				
02...	1405	0.09	110	11.0	09...	1625	3.5	78	9.5
NOV					JUL				
04...	1350	0.26	100	4.5	10...	1020	1.0	82	11.0
MAR 1987					AUG				
12...	1345	0.44	69	2.0	06...	1500	0.38	91	15.0
APR					SEP				
03...	1450	0.59	81	2.0	04...	1540	0.36	96	12.5
24...	1650	4.2	73	4.5					
MAY									
06...	1610	8.9	72	6.5					

07103990 COTTONWOOD CREEK AT MOUTH, AT PIKEVIEW, CO. (LAT 38 55 41N LONG 104 38 35W)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
OCT 1986					APR 1987				
03...	1240	2.0	590	10.5	02...	1310	12	438	15.0
DEC					MAY				
08...	1205	4.1	548	0.5	08...	1520	5.7	500	25.0
JAN 1987					JUN				
13...	1715	4.5	554	0.0	11...	1415	7.4	530	28.0
14...	0845	1.4	629	0.0	JUL				
FEB					10...	1225	3.3	557	27.0
05...	1525	4.2	576	4.0	21...	1605	--	576	25.5
06...	0905	1.8	630	0.0	22...	0305	--	587	15.5
MAR					AUG				
05...	1650	35	314	8.5	06...	1415	3.2	542	26.5
12...	1620	14	475	11.5	SEP				
13...	0705	4.7	540	0.0	03...	1455	3.3	578	26.0

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
07105920 L FOUNTAIN C AB KEATON RE, NR FORT CARSON, CO. (LAT 38 40 55N LONG 104 51 30W									
OCT 1986					JUN 1987				
15...	1410	1.6	112	5.5	22...	1400	9.6	97	15.0
NOV					JUL				
14...	1335	2.0	115	3.0	14...	1115	6.4	104	15.0
JAN 1987					AUG				
05...	1415	1.5	110	1.0	17...	1300	2.2	100	17.0
APR					SEP				
23...	1300	23	68	11.0	18...	1245	1.8	108	13.0
07105924 WOMACK DITCH NEAR FORT CARSON, CO. (LAT 38 40 52N LONG 104 51 20W)									
OCT 1986					JUN 1987				
16...	1215	1.3	110	6.0	22...	1555	1.3	93	15.0
NOV					JUL				
17...	1245	1.3	104	5.0	14...	1340	1.3	104	17.0
JAN 1987					AUG				
06...	1205	0.57	130	3.0	17...	1430	1.7	112	17.0
FEB					SEP				
03...	1025	0.76	110	0.0	18...	1430	1.3	110	17.0
26...	1245	0.90	120	0.0					
MAY									
20...	1345	2.8	100	10.0					
07105928 LITTLE FOUNTAIN CREEK NEAR FORT CARSON, CO. (LAT 38 40 49N LONG 104 51 06W)									
OCT 1986					MAY 1987				
16...	1320	0.23	139	10.5	20...	1305	24	71	9.0
NOV					JUN				
14...	1550	0.86	130	10.0	22...	1510	8.5	100	6.0
JAN 1987					JUL				
05...	1510	0.04	159	1.0	14...	1240	4.0	129	17.0
FEB					AUG				
02...	1510	11	150	3.0	17...	1350	0.57	145	22.0
26...	1205	0.43	155	0.0	SEP				
MAR					18...	1350	0.49	134	17.0
20...	1505	5.0	99	3.0					
APR									
23...	1405	19	150	7.0					
07105940 LITTLE FOUNTAIN CREEK NEAR FOUNTAIN, CO. (LAT 38 38 35N LONG 104 44 48W)									
OCT 1986					MAR 1987				
07...	1000	0.89	2300	11.5	06...	1315	1.9	2190	11.0
NOV					APR				
05...	1335	0.64	2550	--	08...	1515	3.6	1700	15.0
DEC					JUL				
01...	1500	0.47	2620	4.0	08...	1400	7.9	693	20.5
JAN 1987					AUG				
05...	1145	0.56	2950	1.0	07...	1455	0.85	1610	26.0
FEB									
03...	1330	0.58	--	4.5					
07105945 ROCK CREEK ABOVE FORT CARSON RESERVATION, CO. (LAT 38 42 26N LONG 104 50 47W									
OCT 1986					MAY 1987				
16...	1010	0.27	159	3.5	20...	1030	5.5	110	11.0
NOV					JUN				
14...	1155	0.55	151	3.0	24...	1330	2.1	142	17.0
JAN 1987					JUL				
05...	1250	0.77	150	1.0	15...	1215	2.1	150	18.0
FEB					AUG				
02...	1110	0.86	135	3.0	17...	1030	0.53	153	15.0
20...	1105	0.73	153	0.0	SEP				
MAR					18...	1045	0.55	154	12.0
20...	1405	3.8	132	3.5					
APR									
23...	1105	11	120	7.0					
07105950 ROCK CREEK NEAR FORT CARSON, CO. (LAT 38 41 49N LONG 104 49 39W)									
MAR 1987					JUL 1987				
10...	1040	1.4	240	3.0	15...	1405	1.0	185	20.0
20...	1255	1.2	191	7.0					
MAY									
21...	1705	5.5	300	11.0					

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
07105960	ROCK CREEK NEAR FOUNTAIN, CO. (LAT 38 39 16N LONG 104 44 48W)								
OCT 1986					APR 1987				
07...	1140	0.80	1120	13.5	10...	1345	1.3	1170	14.5
NOV					JUL				
05...	1130	0.97	1140	12.0	09...	1335	5.5	505	22.0
DEC					AUG				
01...	1415	0.86	1120	9.5	07..	1600	0.59	1200	18.0
JAN 1987					SEP				
05...	1325	0.84	1180	10.0	17...	1245	0.99	1150	15.5
MAR									
06...	1120	1.4	1120	11.0					
07106000	FOUNTAIN CREEK NEAR FOUNTAIN, CO. (LAT 38 36 08N LONG 104 40 13W)								
DEC 1986					FEB 1987				
09...	1120	--	988	1.5	10...	2215	--	1000	5.5
09...	1130	--	988	1.5	11...	0150	--	1010	4.0
09...	1555	--	1050	3.5	11...	0510	--	990	3.0
09...	2110	--	982	0.5	11...	0513	--	990	3.0
10...	0130	--	799	0.0	JUL				
10...	0135	--	799	0.0	21...	1320	--	1180	28.0
10...	0500	--	820	0.0	21...	1700	--	1230	27.0
10...	0810	--	--	0.0	21...	2050	--	1190	20.5
FEB 1987					21...	2055	--	1190	20.5
10...	1020	--	1010	5.5	22...	0145	--	1160	18.0
10...	1030	--	1010	5.5	22...	0615	--	1200	15.5
10...	1415	--	1040	11.5	22...	0945	--	--	20.0
10...	1800	--	1030	9.0	22...	0950	--	--	20.0
07106300	FOUNTAIN CREEK NEAR PINON, CO. (LAT 38 26 50N LONG 104 35 28W)								
OCT 1936					MAR 1987				
03...	1410	30	1280	13.5	12...	1340	127	1140	13.5
NOV					20...	1010	312	867	8.0
14...	1050	128	1120	4.0	APR				
DEC					16...	1315	126	952	18.0
09...	1055	--	1090	1.5	MAY				
09...	1100	--	1090	1.5	12...	1400	276	606	21.0
09...	1510	--	1070	2.0	JUN				
09...	1900	--	1080	0.0	09...	1330	573	646	19.0
09...	2240	--	1060	0.5	12...	1120	264	780	23.0
10...	0215	--	1140	0.0	JUL				
10...	0230	--	1140	0.0	01...	1345	265	707	23.5
10...	0535	--	1090	0.0	08...	1325	85	929	27.5
JAN 1987					17...	1435	30	1150	30.0
13...	1330	112	1110	7.5	22...	1000	4.4	1170	26.5
FEB					30...	1235	2.5	1180	29.0
10...	1000	--	1040	4.0	AUG				
10...	1005	--	1040	4.0	10...	1435	106	792	29.0
10...	1430	--	1060	10.5	27...	1050	707	486	15.5
10...	1825	--	1090	8.0	SEP				
10...	2145	--	1100	5.5	08...	1330	78	1080	24.0
10...	2150	--	1100	5.5					
11...	0100	--	1080	3.5					
11...	0330	--	1060	2.5					
07108900	ST. CHARLES RIVER AT VINELAND, CO. (LAT 38 14 44N LONG 104 29 09W)								
OCT 1986					MAY 1987				
06...	1320	18	2020	19.0	12...	1150	457	311	14.5
NOV					JUN				
12...	1250	18	2100	5.0	01...	1355	158	572	20.5
DEC					11...	1300	146	616	21.0
11...	1420	19	2320	5.0	JUL				
JAN 1987					13...	1045	29	1650	18.5
13...	1110	23	1710	3.5	AUG				
FEB					10...	1255	105	1380	21.0
11...	1540	20	1800	12.0	SEP				
MAR					11...	1435	13	2000	24.0
12...	1130	38	1220	10.0					
APR									
16...	1105	366	434	10.5					

07116500 HUERFANO RIVER NEAR BOONE, CO. (LAT 38 13 33N LONG 104 15 40W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1986					APR 1987				
08...	1320	4.3	2100	24.5	15...	1625	24	2360	24.0
NOV					MAY				
13...	1620	60	1510	4.5	15...	1245	1790	964	20.0
DEC					JUN				
16...	1135	37	2170	0.5	10...	1425	543	783	26.0
JAN 1987					JUL				
12...	1540	40	2220	9.0	14...	1505	0.85	4300	33.0
FEB					AUG				
12...	1515	51	2000	11.0	11...	--	4.1	3660	33.5
MAR									
11...	1550	21	2590	14.0					

07119500 APISHAPA RIVER NEAR FOWLER, CO. (LAT 38 05 28N LONG 103 58 52W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1986					MAY 1987				
08...	1105	17	1690	15.0	11...	1425	128	713	21.5
NOV					JUN				
13...	1415	24	1510	4.5	22...	1630	17	1650	27.0
DEC					JUL				
12...	1110	4.6	3000	4.0	14...	1355	10	1850	26.0
JAN 1987					AUG				
12...	1350	4.2	3030	7.5	11...	1245	7.7	2340	26.0
FEB					SEP				
12...	1305	3.5	3100	9.5	08...	1455	399	1400	15.0
MAR					09...	1345	43	1510	18.0
11...	1440	25	1200	8.0					
APR									
15...	1330	17	1270	15.0					

07121500 TIMPAS CREEK AT MOUTH NEAR SWINK, CO. (LAT 38 00 10N LONG 103 39 18W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1986					APR 1987				
20...	1325	174	1290	12.5	15...	1110	152	1080	10.0
NOV					MAY				
13...	1225	91	1610	4.0	11...	1125	152	1100	18.0
DEC					JUN				
12...	1510	20	3220	8.5	22...	1415	65	1420	24.0
JAN 1987					JUL				
12...	1135	15	3280	8.0	14...	1145	64	1650	21.0
FEB					AUG				
12...	1120	54	1710	7.5	12...	1440	75	1600	23.0
MAR					SEP				
11...	1200	220	1190	6.0	10...	1420	129	1420	20.5

07122400 CROOKED ARROYO NEAR SWINK, CO. (LAT 37 58 56N LONG 103 35 52W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1986					APR 1987				
20...	1435	22	1470	13.0	15...	1000	13	1490	9.5
NOV					MAY				
13...	1040	5.9	2750	7.0	11...	1020	25	1210	17.5
DEC					JUN				
12...	1325	2.8	3200	8.0	23...	1250	16	1440	23.0
JAN 1987					JUL				
12...	1030	2.4	3230	6.0	14...	1020	13	1710	18.0
FEB					AUG				
12...	0955	1.4	3330	8.0	12...	1345	10	1870	21.0
MAR					SEP				
11...	1000	36	1160	3.5	10...	1240	34	1390	19.0

07123675 HORSE CREEK NEAR LAS ANIMAS, CO. (LAT 38 05 07N LONG 103 21 10W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1986					JUN 1987				
20...	1610	48	3870	12.0	23...	1005	38	2950	19.5
NOV					JUL				
26...	1320	12	5240	8.5	21...	0830	19	8160	19.0
JAN 1987					AUG				
06...	0945	14	7620	2.5	04...	0930	--	6780	20.5
20...	1520	61	7830	1.0	10...	1555	--	5180	--
FEB					18...	1045	--	5720	17.5
19...	0745	16	8120	5.0	25...	1045	--	7800	19.5
MAR					SEP				
17...	1200	42	4500	4.0	01...	0955	--	6600	17.5
APR					08...	1215	11	3960	21.0
21...	1100	47	1740	9.0	15...	1025	--	6800	16.0
MAY					22...	1045	--	5980	15.5
20...	0920	93	3500	16.5	29...	1045	--	8100	14.0

07126140 VAN BREMER ARROYO NEAR TYRONE, CO (LAT 37 23 58N LONG 104 06 55W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
DEC 1985					MAY 1987				
02...	--	0.04	9500	0.0	05...	1800	4.8	7250	13.5
JAN 1987					15...	0735	8.7	2700	14.5
30...	1000	0.07	5990	0.0	15...	0835	8.7	2700	14.5
30...	1115	0.07	5660	0.0	JUN				
FEB					24...	0925	2.8	2090	19.0
17...	1500	0.06	9020	6.0	JUL				
MAR					30...	0845	0.80	7120	19.0
12...	0810	0.04	9600	3.0	AUG				
12...	0900	0.04	9370	3.5	11...	1130	6.1	1540	22.5
24...	1215	0.04	9570	7.0	20...	0830	9.6	1770	19.0
APR					SEP				
16...	0810	0.02	9800	8.0	02...	1415	2.0	1950	21.0
					16...	1230	1.3	2380	17.0

07133000 ARKANSAS RIVER AT LAMAR, CO. (LAT 38 06 24N LONG 102 37 04W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1986					MAY 1987				
23...	0925	84	3330	10.5	13...	0935	2660	2190	13.0
NOV					JUN				
26...	0820	41	4400	4.0	25...	1315	2350	1650	22.0
DEC					JUL				
18...	1405	39	4410	6.5	08...	0900	413	1760	19.5
JAN 1987					23...	1035	617	1540	22.0
15...	1540	33	4500	1.0	AUG				
FEB					12...	0935	484	1680	22.0
20...	0845	37	4550	3.5	SEP				
APR					10...	1040	504	1610	20.5
24...	0940	1480	2260	10.0	29...	1420	18	3400	21.5

07134180 ARKANSAS RIVER NEAR GRANADA, CO. (LAT 38 05 44N LONG 102 18 37W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1986					MAY 1987				
22...	1605	140	3900	16.5	13...	1310	2630	2210	17.0
NOV					JUN				
25...	1645	151	4400	7.5	25...	1735	2440	1720	23.0
DEC					30...	1545	1490	1680	20.0
18...	1210	142	4400	5.0	JUL				
JAN 1987					07...	1555	447	2290	26.0
16...	0925	114	4300	0.0	23...	0840	447	1730	23.0
FEB					AUG				
19...	1530	149	4380	7.5	12...	1230	476	1990	25.0
MAR					SEP				
20...	0825	107	4380	8.5	10...	0845	73	3800	17.0
APR									
24...	1315	2300	2380	16.5					

08220000 RIO GRANDE NEAR DEL NORTE, CO. (LAT 37 41 22N LONG 106 27 38W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
DEC 1986					FEB 1987				
02...	1330	434	--	0.5	03...	1000	297	--	0.0
JAN 1987					MAR				
02...	1500	359	--	0.0	02...	1030	326	--	0.0

08240000 RIO GRANDE AB MOUTH TRINCHERA C NR LASAUSES, CO. (LAT 37 18 58N LONG 105 44 32

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
NOV 1986					JAN 1987				
24...	1200	830	--	1.5	12...	1400	339	--	0.0
DEC					FEB				
16...	1330	581	--	0.5	10...	1300	384	--	0.0

08246500 CONEJOS RIVER NEAR MOGOTE, CO. (LAT 37 03 14N LONG 106 11 13W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
NOV 1986					FEB 1987				
14...	1600	129	--	3.5	17...	1430	101	--	0.0
DEC									
15...	1430	106	--	0.5					

08247500 SAN ANTONIO RIVER AT ORTIZ, CO. (LAT 36 59 35N LONG 106 02 17W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
NOV 1986					DEC 1986				
14...	1430	18	--	0.5	15...	1100	4.6	--	0.0

08248000 LOS PINOS RIVER NEAR ORTIZ, CO. (LAT 36 58 56N LONG 106 04 23W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
NOV 1986					DEC 1986				
14...	1330	76	--	0.5	15...	1230	46	--	0.0

QUALITY OF GROUND WATER

EL PASO COUNTY

384313104431801 - SC01506625AAD - WIDEFIELD NO. 14.

LOCATION.--Lat 38° 43' 13", long 10[illegible]° 43' 18", in SE¼NE¼NE¼ sec. 25, T.15S., R.66W., El Paso County, Hydrologic Unit 1102[illegible]3.

WELL CHARACTERISTICS.--Municipal well, diameter 18 in, depth 48 ft, screened 37 to 48 ft.

PERIOD OF RECORD.--January 1982 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
NOV						
17...	1505	1320	7.2	13.0	9.90	43
MAR						
02...	1230	1240	7.3	13.5	8.80	35
MAY						
05...	1245	1360	7.2	13.0	9.30	41
AUG						
21...	1135	1350	7.2	13.0	11.0	40

384407104434801 - SC01506624BAD1 WIDEFIELD NO. 4.

LOCATION.--Lat 38°44'07", long 104°43'48", in SE¼NE¼NE¼ sec. 24, T.15S., R.66W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Widefield of Fountain Alluvium.

WELL CHARACTERISTICS.--Municipal well, diameter 16 in., depth 71 ft., screened 41 to 71 ft.

DATUM.--Elevation of land surface is 5,685 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--February 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
NOV						
17...	1435	642	7.1	12.5	6.60	24
MAR						
02...	1145	645	7.2	12.5	7.00	20
MAY						
05...	1205	630	7.2	12.0	6.20	27
AUG						
21...	1100	676	7.1	12.5	6.00	23

EL PASO COUNTY

384458104442601 - SC01506614AAD - SECURITY NO. 2.

LOCATION.--Lat 38°44'58", long 104°44'26", in SE¼NE¼NE¼ sec. 14, T.15S., R.66W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Widefield of Fountain Alluvium.

WELL CHARACTERISTICS.--Municipal well, diameter 24 in., depth 78 ft., screened 43 to 78 ft.

DATUM.--Elevation of land-surface is 5,270 ft abov National Geodetic Vertical Datum of 1929 , from topograghic map.

PERIOD OF RECORD.--February 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
NOV						
17...	1230	682	7.0	12.5	6.60	23
FEB						
26...	1250	601	7.0	12.5	6.20	22
MAY						
05...	1330	576	7.0	12.5	6.80	21
AUG						
21...	1220	522	7.0	13.0	8.00	16

384535104450801 - SC01506611BCD2 VENETUCCI NO. 3.

LOCATION.--Lat 38°45'35", long 104°45'08", in SE¼SW¼NW¼ sec. 11, T.15S., R.66W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Widefield of Fountain Alluvium.

WELL CHARACTERISTICS.--Irrigation well, diameter 24 in., depth 80 ft., screened unknown.

PERIOD OF RECORD.--February 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
NOV						
17...	1400	432	7.2	12.5	8.70	12
MAR						
02...	1315	433	7.3	12.5	8.70	8.7
MAY						
05...	1435	443	7.2	12.5	8.70	15
AUG						
21...	1240	452	7.2	13.0	8.80	11

384610104453501 - SC01506603DDB SECURITY NO. 14.

LOCATION.--Lat 38°46'10", long 104°45'35", in NW¼SE¼SE¼ sec. 14, T.15S., R.66W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Widefield of Fountain Alluvium.

WELL CHARACTERISTICS.--Municipal well, diameter 24 in., depth 80 ft., screened 39 to 80 ft.

DATUM.--Elevation of land-surface is 5,780 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--February 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
NOV						
17...	1210	608	7.5	12.5	7.60	25
FEB						
26...	1325	598	7.5	--	7.50	21
MAY						
05...	1355	594	7.5	13.0	6.90	24

384617104455901 - SC01506603CAD STRATMOOR HILLS NO. 4.

LOCATION.--Lat 38°46'17", long 104°45'59", in SE¼NE¼SW¼ sec. 3, T.15S., R.66W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Widefield of Fountain Alluvium.

WELL CHARACTERISTICS.--Municipal well, diameter 16 in., depth 49 ft., screened 29 to 49 ft.

DATUM.--Elevation of land surface is 5,760 ft above National Geodetic Vertical Datum of 1929, from topograghic map.

PERIOD OF RECORD.--February 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
NOV						
17...	1250	912	7.6	13.0	6.80	42
FEB						
11...	1315	952	7.5	13.0	--	--
MAR						
02...	1345	1010	7.4	12.5	7.80	37
MAY						
05...	1500	912	7.3	12.5	7.10	41
AUG						
21...	1310	927	7.2	13.0	7.10	33

384328104481101 - SC01506620CDD1 - GOLF COURSE NO. 14

LOCATION.--Lat 38°43'28", long 104°48'11", in SE¼SE¼SW¼ sec. 20, T. 15S., R. 66W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Piney Creek Alluvium.

WELL CHARACTERISTICS.--Observation well, depth 12.2 ft, diameter 2 in, screened 8 to 12 ft.

PERIOD OF RECORD.--April 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)
SEP											
04...	1450	2.39	5790	7.3	15.0	<0.01	1.70	0.07	0.09	0.93	1.0

384108104420701 - SC01606506DAA - FOUNTAIN NO. 2

LOCATION.--Lat 38°41'08", long 104°42'07", SE¼NE¼NE¼ sec. 6, T. 16S., R.65W., in El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Fountain Alluvium.

WELL CHARACTERISTICS.--Municipal well, depth 55 ft.

PERIOD OF RECORD.--March to September 1985.

WATER QUALIY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
NOV						
17...	1120	1310	7.4	12.5	3.20	48
FEB						
26...	1150	1220	7.4	12.0	3.60	49
MAY						
05...	1125	1270	7.4	12.0	2.80	48
AUG						
21...	1000	1230	7.4	13.0	2.10	47

EL PASO COUNTY

384639104461401 - SC01506603BAC1 - MARS GAS

LOCATION.--Lat 38°46'39", long 104°46'14", in SW¼NE¼NW¼ sec. 3, T. 15S., R.66W., El Paso County, Hydrologic Unit 1102003

AQUIFER.--Fountain Alluvium.

WELL CHARACTERISTICS.--Commercial well, diameter 6 in, depth 85 ft, screened 50 to 85 ft.

DATUM.--Elevation of land surface is 5,820 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--March 1985 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 17...	1315	993	7.1	10.5	11.0	38
FEB 11...	1440	842	7.1	11.5	--	--
MAR 02...	1430	884	7.2	10.5	8.20	28
MAY 05...	1530	873	7.2	12.0	11.0	31
AUG 21...	1335	891	7.2	12.0	10.0	36

385323104224001 - SC01306230ACC1

LOCATION.--Lat 38°53'23", long 104°22'40", in SW¼SW¼NE¼ sec. 23, T. 13S., R. 62W., El Paso County, Hydrologic Unit 11020004.

AQUIFER.--Black Squirrel Alluvium.

WELL CHARACTERISTICS.--Municipal well, diameter 16 in, depth 176 ft, screened 116 to 176 ft.

DATUM.--Elevation of land surface is 6,160 ft above National Geodetic Vertical Datum of 1929, from topographic map

PERIOD OF RECORD.--February 1985 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 20...	1500	411	7.2	12.0	6.30	11
FEB 23...	1330	400	--	12.5	6.80	14
JUN 12...	1050	400	6.7	13.0	6.90	13
AUG 27...	1330	412	7.2	12.0	6.60	11

384056104415601 - SC01606505CCB - FOUNTAIN NO. 3

LOCATION.--Lat 38°40'56", long 104°41'56" in NW¼SW¼SW¼ sec. 5, T. 16S., R. 65W., El Paso County, Hydrologic Unit 11020003

AQUIFER.--Fountain Alluvium.

WELL CHARACTERISTICS.--Municipal well.

PERIOD OF RECORD.--March 1985 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
NOV						
17...	1040	1190	7.2	12.0	2.50	53
FEB						
26...	1100	1190	7.2	--	--	46
MAY						
05...	1050	1160	7.4	12.0	2.90	47
AUG						
21...	0940	1170	7.3	12.0	2.10	45

384718104463701 - SC01406633DAA - BARNES WELL

LOCATION.--Lat 38°47'18", long 104°46'37", in NE¼NE¼SE¼ sec. 33. T. 14S., R. 66W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Fountain Alluvium.

WELL CHARACTERISTICS.--Domestic well, depth 72 ft, diameter 6 in.

PERIOD OF RECORD.--March 1985 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
NOV						
17...	1335	1410	7.2	11.5	15.0	38
MAR						
02...	1505	1300	7.4	11.0	14.0	37
MAY						
05...	1600	1330	7.3	12.0	13.0	41
AUG						
21...	1410	1020	7.3	12.5	9.90	19

384331104473401 - SC01506621CCB - GOLF COURSE NO. 22

LOCATION.--Lat 38°43'31", long 104°47'34", in NW¼SW¼SW¼ sec. 21, T. 15S., R. 66W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Piney Creek Alluvium.

WELL CHARACTERISTICS.--Observation well, depth 18.2 ft, diameter 2 in, screened 14 to 18 ft.

PERIOD OF RECORD.--September 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)
SEP											
04...	1400	4.80	2750	7.6	15.0	<0.01	4.40	0.08	0.10	0.82	0.90

EL PASO COUNTY

384318104475301 - SC01506629AAB1 - GOLF COURSE NO. 19

LOCATION.--Lat 38°43'18", long 104°47'53", in NW¼NE¼NE¼ sec. 29, T. 15S, R. 66W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Piney Creek Alluvium.

WELL CHARACTERISTICS.--Observation well, depth 13.8 ft, diameter 2 in, screened 9.5 to 13.5 ft.

PERIOD OF RECORD.--April to October 1981; September 1986 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)
SEP											
04...	1530	1.33	3380	7.6	15.0	<0.01	5.10	0.07	0.09	1.0	1.1

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October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI).

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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